



# भारत का राजपत्र The Gazette of India

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इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके।  
(Separate paging is given to this Part in order that it may be filed as a separate compilation)

## भाग III—खण्ड 2 [PART III—SECTION 2]

पेटेंट कार्यालय द्वारा जारी की गई पेटेंटों और डिजाइनों से सम्बन्धित अधिसूचनाएं और नोटिस  
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**APPLICATION FOR PATENTS FILED AT THE HEAD OFFICE, 214, ACHARYA JAGDISH BOSE ROAD, CALCUTTA-700017**

The dates shown in the crescent brackets are the dates claimed under Section 135, of the Patents Act, 1970.

The 14th May 1987

- 384/Cal/87. Dipankar Bhattacharjee. Improvement in the process of surface preparation of Cast Iron articles like Vats, Valves, Pipes etc. before enameling or glass lining.
- 385/Cal/87. North American Philips Corporation. Surface-mounted electrical device.
- 368/Cal/87. Pennwalt Corporation. Process for desulfurizing organic polysulfides.
- 387/Cal/87. Pennwalt Corporation. A moderate pH electrolyte bath for electroplating.
- 388/Cal/87. Degussa Aktiengesellschaft. Thermal insulation for high-pressure sinter furnaces.

The 15th May 1987

- 389/Cal/87. Degussa Aktiengesellschaft. High pressure furnace.
- 390/Cal/87. Madhav Anant Date. A single phase digital energy meter.
- 391/Cal/87. Westinghouse Electric Corporation. Improvements in or relating to circuit breaker with electrical disconnect means.
- 392/Cal/87. Westinghouse Electric Corporation. Improvements in or relating to circuit breaker with adjustable thermal trip unit.

The 18th May 1987

- 393/Cal/87. Emory University. Improved fibrinolytic composition.
- 394/Cal/87. Chicopee. Facing material with improved stain resistance.
- 395/Cal/87. Sulzer Brothers Limited. A loom shedding motion.
- 396/Cal/87. Sulzer Brothers, Limited. Apparatus for weft insertion in a ribbon gripper loom.

The 19th May 1987

- 397/Cal/87. Engelhard Corporation. A process for producing a hydrogen rich gas from a hydrocarbonaceous feed and for producing by products thereof.  
[Divisional dated 5th September, 1983.]
- 398/Cal/87. Engelhard Corporation. A process for producing a hydrogen rich gas from a hydrocarbonaceous feed and for producing by products thereof.  
[Divisional dated 5th September, 1987.]
- 399/Cal/87. Engelhard Corporation. A process for producing a hydrogen rich gas from a hydrocarbonaceous feed and for producing by products thereof.  
[Divisional dated 5th September, 1983.]
- 400/Cal/87. Engelhard Corporation. A process for producing a hydrogen rich gas from a hydrocarbonaceous feed and for producing by products thereof.  
[Divisional dated 5th September, 1983.]
- 401/Cal/87. S. C. Johnson & Son, Inc. Floor polishing composition.  
(Convention dated 23rd May, 1986 (86 12589) U.K.)

The 20th May 1987

- 402/Cal/87. (1) Dnepropetrovsky Metallurgicheskyy Institut imeni L.I. Brezhneva; (2) Tsentralnyy Institut Povysheniya Kvalifikatsii Rukovodyaschikh Rabotnikov I Spetsial'stov Chernoi Metallurgii. Method and apparatus for removing inside flash from an electrically welded straight-seam pipe.

403/Cal/87. Intersteel Technology, Inc. Method and apparatus for continuously charging a steelmaking furnace.

404/Cal/87. Debreceni Mezogazdasagi Gepgyarto Vallalat. Process for the acidic basic seed coating of seeds, especially rice.

**APPLICATION FOR THE PATENTS FILED AT THE PATENT OFFICE BRANCH, MUNICIPAL MARKET BUILDING, THIRD FLOOR, KAROL BAGH, NEW DELHI-5**

The 27th April 1987

- 362/Del/87. Shriram Institute for Industrial Research. An apparatus for preparation of polyacetal.
- 363/Del/87. Shriram Institute for Industrial Research. A process for the polymerization of trioxana with comonomers.
- 364/Del/87. Molecular Diagnostics, Inc. A method of making a labelled nucleic acid probe.  
[Divisional date 13th June, 1984].
- 365/Del/87. Shell Internationale Research Maatschappij B. V. Process for the preparation of a silver-containing catalyst.  
(Convention date 29th April, 1986, U.K.).

The 28th April 1987

- 366/Del/87. General Foods Corporation. A method of hydrolyzing a coffee extraction residue material to produce mannan oligomers.  
[Divisional date 25th September, 1984]
- 367/Del/87. Pilecon Engineering Berhad. Pilling.  
(Convention date 30th April, 1986, U.K.).
- 368/Del/87. Gosudarstvennyy prosktiro-Konstruktorakyy I Eksperimentalnyy Institut Po Obogatitelnomu Oborudovaniyu "Gipromashobogasheniye" "Electrical drum-type separator".
- 369/Del/87. Glaverbel. "Process of forming a refractory mass and mixture of particles for forming such a mass".
- 370/Del/87. Exxon Research and Engineering Company, "Improved coatings with sulfonated polymers".  
The 29th April, 1987
- 371/Del/87. Union Carbide Corporation. "Enhanced gas separation process".
- 372/Del/87. Rewi Kemp, "Boat Hulls".
- 373/Del/87. Imperial Chemical Industries PLC. "Explosive compound". (Convention date 11th June, 1986, U.K.).
- 374/Del/87. Solstanche. "Arrangement for underwater drilling of foundations".
- 375/Del/87. UOP Inc. "Regenerable support matrix for immobilizing biologically active materials".  
The 30th April, 1987
- 376/Del/87. Shriram Institute for Industrial Research. "A process for the preparation of moisture proof paper".
- 377/Del/87. Pfizer Inc. "Process for transformation of yarrowis lipolytica".  
[Divisional date 14th August, 1984].

The 1st May 1987

- 378/Del/87. Lenzing Aktiengesellschaft. Method of producing a valve sack.
- 379/Del/87. Lenzing Aktiengesellschaft. Arrangement for producing a valve at a sack blank.
- 380/Del/87. Farrel Corporation. Mixing machine.

The 4th May 1987

- 381/Del/87. Megapules Incorporated. Dynamic antenna tuning system and method.
- 382/Del/87. Megapulse Incorporated. Methods of and apparatus for measuring time of arrival of remote loran-c and related signals and effective time of transmission of local signals at transmitter sites.
- 383/Del/87. Kenrich Petrochemicals, Inc. Non-Blooming untistate for polymers.
- 384/Del/87. Shell Internationale Research Maatschappij B. V. Catalyst compositions and olefin/CO copolymerization process.
- 385/Del/87. Prashanta Kumar Bhattacharya. A process for depositing sulphur on a carrier surface.

APPLICATION FOR PATENTS FILING AT FOR PATENT  
OFFICE BRANCH, 61, WALLAJAH ROAD,  
MADRAS-600002

The 4th May 1987

- 317/MAS/87. Lucas Industries Public Limited Company. A Brake Pad for a Disc Brake.
- 318/MAS/87. Lucas Industries Public Limited Company. A Disc Brake Especially for Motor Vehicles.
- 319/MAS/87. Uddholm Tooling Aktiebolag. Alloy steel product, die blocks and other forgings and castings made thereof and a method to manufacture the product.

The 5th May 1987

- 320/MAS/87. Rajashekharaya Murigeppayya Mathad. Rajashekhar Multi purpose and Adjustable seed cum Fertilizer Drill (Bullock Drawn).
- 321/MAS/87. Ciba-Geigy AG. Process for the preparation of Anthraquinoid Intermediates and vat dyes.
- 322/MAS/87. The Boots Company PLC. Composition for the Control of Insects. (May 27th, 1986. Great Britain).
- 323/MAS/87. Peter Joseph Jackson. Pressure Regulator. (May 7th, 1986. Great Britain).
- 324/MAS/87. Hoechst Aktiengesellschaft. Process for the Preparation of a Polyolefin.

The 6th May 1987

- 325/MAS/87. Aruldoss Patrick. A Mobile Storage system.
- 326/MAS/87. Institut Francais DU Petrole. Enzymatic Process for Treating xanthan Gums in order to improve the Filterability of Their Aqueous Solutions.
- 327/MAS/87. Snamprogetti S. P. A. Process for the synthesis of Methyl-Tert-Alkyl Ethers with suppression of Corrosion.
- 328/MAS/87. Snamprogetti S. P. A. Process for Preparing Alkyl-Tert-Butyl Ethers.

The 7th May 1987

- 329/MAS/87. Feherjetechnologiai Tudomanyos Termelési Egysúles. Soyabean Treatment. Process for Preparing Soybean for Feeding Purposes.

The 8th May 1987

- 330/MAS/87. Ramar Chettiar Sennaiyan Chettiar Ponnuswamy Chettiar Ayyathurai. A Starter for an Electric Machine.
- 331/MAS/87. National Remote Sensing Agency. Additive Colour Viewer.

- 332/MAS/87. Eddiya Gopala Krishna Rao. A Combined Calculator and Instructional Aid.
- 333/MAS/87. Chevron Research Company. New Zeolite SSZ-23.
- 334/MAS/87. Chevron Research Company. New Zeolite SSZ-24.
- 335/MAS/87. Chevron Research Company. New Zeolite SSZ-25.
- 336/MAS/87. Edelcanu Gesellschaft MBH. Mixing of Batches of a Flowable Medium.

## ALTERATION OF DATE

159984. (691/Cal/84) Ante dated to 10th September, 1982.
160017. (423/Del/83) Ante dated to 22nd November, 1979.
160030. (60/Bom/85) Ante dated to 24th July, 1982.
160031. (61/Bom/85) Ante dated to 24th July, 1982.
160049. (34/Cal/85) Ante dated to 1st July, 1982.
160054. (173/Cal/85) Ante dated to 11th March, 1982.
160055. (195/Cal/85) Ante dated to 15th October, 1982.
160056. (856/Cal/85) Ante dated to 13th June, 1984.
160057. (161/Cal/86) Ante dated to 14th October, 1982.

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CLASS : 187-E

159976

Int. Cl. : H 04 r 1/00.

IMPROVEMENTS IN OR RELATING TO TELEPHONE TRANSDUCERS.

Applicant : A. P. BESSON LIMITED, OF ST. JOSEPH'S CLOSE, HOVE, EAST SUSSEX, ENGLAND.

Inventors : 1. DAVID VALENTINE CHARLES WORTH, 2. DEREK FREDERICK SMITH.

Application No. 1073/Cal/82 filed September 16, 1982.

Convention dated 16th September, 1981 (81 27961) U. K.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 16 Claims

A method for making an electro-acoustic transducer in which the major components and sub-assemblies are placed downwards into a rear cover which comprises :

arranging with its wall upwards a generally cup-shaped rear cover of plastics material having a cylindrical side wall out-turned at its upper end and extending from the rim of a base divided along a chord into a major segment for receiving an electromagnetic driving unit and a terminal receiving minor segment at a higher vertical level than the major segment, the major segment having on its inner face fixing lands disposed symmetrically with respect to a diameter normal to said chord offset away from the minor segment and extending inwards from the side wall, each fixing land being formed to define a fixing location and having on its face presented to the minor segment an upstanding locator wall;

placing downwards into the rear cover a yoke and coil-sub-assembly defined by a cruciform yoke plate of magnetisable material having a magnet at its centre with one pair of upturned opposite arms directed along the diameter normal to said chord the said pair of arms defining pole pieces and carrying coils and with the other pair of upturned opposite arms parallel to the said chord and formed with outturned fixing ears that settle directly on said lands of the major segment with through-holes therein aligning with said fixing locations of said lands;

placing downwardly into the rear cover an armature formed with depending bearing means that settle on the magnet and permit the armature to rock thereon and a pair of torsion arms extending towards the lands and terminating in fixing ears that settle behind the locator wall on the fixing ears of the coil sub-assembly with through-holes aligning with said fixing locations of said lands, said armature having secured thereto an upstanding connecting rod;

mechanically fixing the armature from above the rear cover in tight contact with the yoke plate and the yoke plate in tight contact with the lands so that the armature is supported for vibration in said rear cover;

introducing connector terminals through said minor segment and electrically connecting the coil to the terminals;

placing downwards onto the rear cover a dished diaphragm so that its rim settles on the out-turned end of the cylindrical wall and the connecting rod projects through a through-hole in said diaphragm;

adhering the connecting rod to the diaphragm; and assembling a front cover to the rear cover.

Compl. specn. 17 pages.

Drg. 2 sheets

CLASS : 34-B

159977

Int. Cl. : C 08 b 17/00.

AN AUTOMATED CONTROL SYSTEM APPARATUS FOR USE IN A REACTOR WHERE VAPOR PHASE IS PRESENT.

Applicant : THE DOW CHEMICAL COMPANY, OF 2030 DOW CENTER, ABBOTT ROAD, MIDLAND, MICHIGAN 48640, U. S. A.

Inventors : 1. TIMOTHY THOMSON, 2. FERMAN PETERS.

Application No. 919/Cal/83 filed July 22, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 4 Claims

An automated control system apparatus for use in conjunction with a reactor for the reaction of a cellulose with an etherifying agent and where a vapor phase is present, said apparatus comprising :

(a) an analyzer which is directly connected to the vapor space of the reactor :

(i) for periodically measuring the quality of at least one of the reactants or products in the vapor phase of the reactor; and

(ii) for determining the rate of reaction taking place from the said measurement at (i); and

(b) a minicomputer connected with the analyzer for regulating the reaction temperature in the reactor continuously while the reaction is on by taking into account the rate of reaction determined by the analyzer to compute the amount of heating or cooling needed for the reactor.

Compl. specn. 12 pages.

Drg. Nil

CLASS : 26

159978

Int. Cl. : F 16 n 31/02.

ASSEMBLY FOR WIPING CONTINUOUSLY MOVING STRIP.

Applicant : ALLIED TUBE & CONDUIT CORPORATION, OF 16100 SOUTH LATHROP AVENUE, HARVEY, ILLINOIS 60426, UNITED STATES OF AMERICA.

Inventor : LEOPOLD STEPHEN SITKO.

Application No. 1074/Cal/83 filed September 3, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 3 Claims

A wiping assembly for wiping a surface of metal strip or the like moving in a continuous pathway comprising :

a housing having an elongated channel extending across the pathway of strip travel and opening toward the strip;

an elongated blade member extending from said channel and having a wiping surface facing said strip for contact therewith;

an elongated inflatable member interposed in said channel behind said wiping member; and

means for inflating said inflatable member to adjust the pressure of said wiping surface against the strip.

Compl. specn. 12 pages.

Drg. 1 sheet

CLASS : 62-A<sub>2</sub> B

159979

Int. Cl. : D 06 m 1/00, 3/06, 3/08.

A PROCESS FOR IMPARTING HIGH DEGREE OF LIGHT FASTNESS TO JUTE AND OTHER TEXTILES CONTAINING LIGNOCELLULOSIC FIBRES.

Applicant : INDIAN JUTE INDUSTRIES' RESEARCH ASSOCIATION, OF 17, TARATOLA ROAD, CALCUTTA-700 088, WEST BENGAL, INDIA.

Inventors : 1. SUBHAS KUMAR CHATTERJEE, 2. TAPAN KUMAR GUHA ROY, 3. DEBABRATA ADHIKARI.

Application No. 1086/Cal/83 filed September 6, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 4 Claims

A process for imparting high degree of light fastness to jute and other textile materials containing lignocellulosic fibres such as mesta, bimli or its blends with other known textile materials, comprising a three stage batch process where in the first stage the textile material is treated with a derivative of chlorine as herein defined followed by treatment with an alkaline reducing agent as herein defined optionally containing a caustic alkali and finally bleached in a known manner with an oxidising agent as herein defined.

Compl. specn. 6 pages.

Drg. Nil

CLASS : 40-A<sub>1</sub>

159980

Int. Cl. : B01j 1/14, 9/20.

#### AN IMPROVED REACTOR FOR USE IN CHEMICAL REACTION.

Applicant : TOYO ENGINEERING CORPORATION, NO. 2-5, KASUMIGASHIKI 3-COME, CHIYODA-KU, TOKYO, JAPAN.

Inventors : 1. KOZO OHSAKI, 2. JUN ZANMA, 3. HIROSHI WATANABE.

Application No. 1108/Cal/83 filed September 9, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 17 Claims

An improved reactor having a cylindrical, upright outer shell having a top wall and a bottom wall, which reactor is adapted to effect a catalytic reaction, in the presence of a granular catalyst, under conditions effective to maintain both the starting materials for the reaction and reaction product in a gaseous state at the temperatures and pressures of reaction the improvement comprising :

- (a) a gas-permeable, cylindrical outer catalyst retainer positioned within said outer shell and spaced from the inner wall of said outer shell, thereby defining an outer, first annular intercylinder space between the inner surface of said outer shell, the outer surface of said outer catalyst retainer and said top and bottom walls;
- (b) a gas-permeable, cylindrical inner catalyst retainer positioned coaxial with and inside of said outer catalyst retainer, thereby defining a second annular intercylinder space between said outer catalyst retainer, said inner catalyst retainer and said top and bottom walls;
- (c) at least two vertical partition walls extending in respectively different radial directions between said outer catalyst retainer and said inner catalyst retainer so as to divide said second intercylinder space into a plurality of separate chambers which have the shape of segments of an annulus in horizontal cross section, each of which chambers defines a separate reaction chamber when said granular catalyst is packed therein;
- (d) a plurality of heat exchanging tubes which extend vertically through at least one of said reaction chambers, said tubes being arranged in partially circular groups which are concentric with the common axis of both of said outer and inner catalyst retainers, the tubes in each of said groups being spaced substantially the same radial distance

from said common axis and being circumferentially spaced from each other, the respective groups of tubes being spaced different radial distances from said common axis;

- (e) at least one collecting header and at least one distributing header provided respectively at opposite vertical end of each of said reaction chambers having said tubes therein and connected to the heat exchanger tubes extending through the corresponding reaction chamber at opposite respective ends of said tubes, in order to collect or distribute respectively fluid for heat exchange which passes through said heat exchanging tubes;
- (f) at least one fluid outlet and at least one fluid inlet which communicate with said collecting header and said distributing header respectively;
- (g) at least one catalyst charging inlet and at least one catalyst discharging outlet provided to each of said reaction chambers;
- (h) one or more radially extending, vertical dividing walls provided in at least one of said first intercylinder space and the space within said inner catalyst retainer; each of said walls being adapted to control the flow path of a reaction gas stream so that said stream is caused to flow in series through at least two of said reaction chambers in radial directions alternately radially inwardly and outwardly in each successive chamber, the direction of the flow in the first chamber being radially outwardly when said stream is introduced at the radially inward end of said chamber, and the flow direction in said first chamber being radially inwardly when said stream is introduced at the radially outward end thereof;
- (i) at least one vertical, radially extending perforated plate provided in one of said intercylinder spaces, which perforated plate causes a gas stream to flow uniformly in the circumferential direction through the orifices defined by the perforations thereof, said perforated plate constituting a radial extension of at least one of said vertical partition wall at which extension said dividing wall is not provided; and
- (j) at least one reaction gas inlet and at least one product gas outlet provided in communication with said chambers.

Compl. specn. 77 pages.

Drgs. 11 sheets

CLASS : 85-k

159981

Int. Cl. : F 27 b 15/10, 15/14.

#### A TANGENTIALLY FIRED PULVERIZED COAL-BURNING FURNACE.

Applicant : COMBUSTION ENGINEERING, INC., OF 1000 PROSPECT HILL ROAD, WINDSOR, CONNECTICUT, UNITED STATES OF AMERICA.

Inventors : 1. RICHARD WAYNE SANTALA, 2. ROBERT JOHN COLLETTE, 3. ANGELOS KOKKINOS, 4. MICHAEL SCOTT MCCARTNEY.

Application No. 123/Cal/84 filed February 21, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 2 Claims

A tangentially-fired, pulverized coal-burning furnace, comprising :

- a combustion chamber of substantially square cross section, a pivotable fuel and air supply nozzle in each corner of;
- the combustion chamber ejecting flames relative the centerline of the chamber to generate a fireball swirling about the axis of the chamber;

an exit from the upper portion of the combustion chamber for the flue gases generated in the combustion chamber;

a convection section connected to the flue gas exit downstream of the combustion chamber;

a first supply of secondary combustion air for the systems in each corner of the combustion chamber;

a second supply of secondary air for the combustion chamber, and a nozzle means for injecting the second supply of secondary;

air for the upper portion of the combustion chamber to oppose the swirl of the fireball in its upper portion to produce a uniform non-swirling mass flow of exit gases from the combustion chamber to the flue gas outlet and militate against the formation of NOx.

Compl. specn. 10 pages.

Drgs 2 sheets

CLASS : 37-B

159982

Int. Cl. : B 04 c 3/00.

#### CYCLONE.

Applicant : UBE INDUSTRIES, LTD., OF 12-32, NISHIHONMACHI 1-CHOME, UBE-SHI, YAMAGUCHI-KEN, JAPAN.

Inventors : 1. MASAYUKI KIYOSAWA, 2. NOBUAKI INOUE, 3. EIICHI SONODA.

Application No. 230/Cal/84 filed April 10, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 7 Claims

A cyclone comprising a cylindrical shell, an inverted conical hopper depending from said cylindrical shell, a cylindrical dust exhaust duct leading from the lower end of said inverted conical hopper, a gas supply duct extending tangentially or circumferentially of said cylindrical shell for introducing dust-containing gas into the cyclone, and a gas exhaust duct penetrating the top wall of said cylindrical shell with the lower end of said gas exhaust duct positioned below said top wall, the peripheral wall of said cylindrical shell having a projecting side wall portion inwardly projecting into the cyclone and terminating in the joint of the inner side wall of said gas supply duct and the peripheral wall of said cylindrical shell, said cylindrical gas exhaust duct having a protruding portion which smoothly produces from the lower side wall of said gas exhaust duct and has a diameter at least equal to the diameter of said gas exhaust duct.

Compl. specn. 19 pages.

Drgs. 3 sheets

CLASS : 134-B

159983

Int. Cl. : F 16 d 23/00.

#### VEHICLE DRIVE ARRANGEMENT.

Applicant : MASSEY-FERGUSON SERVICES N. V., ABRAHAM DE VEERSTAAT 7A, GURACAO, NETHERLANDS ANTILLES.

Inventor : 1. RENATO BONI.

Application No. 433/Cal/84 filed June 20, 1984.

Convention dated 28th June, 1983 (83 17452) U.K.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 9 Claims

A vehicle drive arrangement having a drive shaft, a first hollow driven shaft, a second driven shaft rotatable within the first hollow driven shaft, and first and second clutches co-axial with the driven shafts for coupling the drive shaft with the first and second driven shafts respectively, the arrangement being characterised in that one of the clutches

is operated by a force transmitting path which is located outside both driven shafts and which passes axially through the central portion of the other clutch.

Compl. specn. 8 pages.

Fig. 1 sheet

CLASS : 158-D

159984

Int. Cl. : B 61 g 9/20.

#### APPARATUS FOR ATTACHING A STRIKER TO A SILL FOR A RAILWAY VEHICLE.

Applicant : MCCONWAY & TORLEY CORPORATION, AT 109 48TH STREET, PITTSBURGH, PENNSYLVANIA 15201, UNITED STATES OF AMERICA.

Inventor : J. WILLIAM OWEN ELLIOTT.

Application No. 691/Cal/84 filed September 27, 1984.

Division of Application No. 1047/Cal/82 dated 10th September, 1982.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 5 Claims

An apparatus for attaching a striker to a sill for a railway vehicle to transmit forces from a draft gear to the sill, the combination comprising :

a striker having walls including spaced-apart side walls projecting from a front striker face to form a pocket opening for a shank portion of a couplers extending

into said pocket openings, said striker having front draft lugs on end portions of said side walls facing opposite said striker face, rear portions of said side walls including thickened side wall sections extending to said rear draft lugs for forming high-strength welding sites.

means for forming high-shear strength weld attachments between said sill and said high-strength weld sites; and

means for forming substantially lower shear strength weld attachments as compared with said high-shear strength wall attachments between said sill and said side walls in an area between said front striker face and said high-shear strength weld attachments.

Compl. specn. 20 pages.

Drgs. 3 sheets

CLASS : 32-F

159985

Int. Cl. : C 08 g 5/06, 37/08.

#### PROCESS FOR THE PREPARATION OF A CONDENSATION PRODUCT OF PHENOL FORMALDEHYDE AND UREA.

Applicant : ISOVER SAINT-GOBAIN, "LES MIROIRS" OF 18 AVENUE D'ALSACE, 92400 COURBEVOIE, FRANCE.

Inventors : 1. ROGER FUGIER, 2. CHARLES DE GOYS DE MEZFRAC, 3. JACKY JOACHIN, 4. MICHEL DECAGNY.

4. MICHEL DECAGNY.

Application No. 794/Cal/84 filed November 16, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 7 Claims

A process for the preparation of a condensation product of phenol, formaldehyde and urea, in the presence of a basic catalyst characterised in that phenol and formaldehyde are reacted in the presence of said catalyst at a temperature between 60°C and 75°C, preferably at about 70°C, the molar ratio of formaldehyde to phenol (F/P) being between 3 and 6, until the phenol conversion is above 98%, cooling of the reaction mixture is then commenced and urea is introduced

in such a quantity that the molar ratio of urea to phenol (U/P) will be within the range of :

from	F/P - 2.55	to	F/P - 2.55
	1.8		0.7
preferably from	F/P - 2.55	to	F/P - 2.55
	1.8		0.8

Compl. specn. 23 pages.

Drg. Nil

CLASS : 32E

159986

Int. Cl. : C 08 f 29.00, 35/00.

A PROCESS FOR THE PREPARATION OF THE ACID AND DIBROMONEOPENTYL GLYCOL BASED POLY-ESTER RESINS.

Applicant : SHRI RAM INSTITUTE FOR INDUSTRIAL RESEARCH, 19 UNIVERSITY ROAD, DELHI-110007, INDIA, AN INDIAN INSTITUTE.

Inventor(s) : DATTA PRASAD ACHYOT DABHOLKAR, GEETA UNNIKRISHNAN & PRAKASH SINGH.

Application for patent No. 456/DEL/83 filed on 5th July, 1983.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110005.

#### 5 Claims

A process for the preparation of a het acid and dibromoneopentyl glycol based polymer which comprises in heating a mixture consisting of het acid,

dibromoneopentyl glycol and maleic anhydride to a temperature of between 145 to 180°C in the presence of an inert gas such as carbon dioxide for a period till the reaction medium has an acid value of 40 IZ mg KOH/gm.

Compl. specn. 7 pages.

Drg. No sheet

CLASS : 36 A<sub>2</sub> and 163 D

159987

Int. Cl. : B 05 b - 5/00 & F 04 f - 11/00.

AN ELECTROSTATIC PUMP FOR PUMPING LIQUIDS.

Applicant(s) : IMPERIAL CHEMICAL INDUSTRIES PLC., OF IMPERIAL CHEMICAL HOUSE, MILLBANK, LONDON SW1P 3JF, ENGLAND, A BRITISH COMPANY.

Inventor(s) : RONALD ALAN COFFEE, TIMOTHY JAMES & ROBERT ANTHONY ANSTEY.

Application for Patent No. 489/DEL/1983 filed on 18th July 1983. Convention application No. 8224408 filed on 25-08-1982 (U.K.).

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110005.

#### 6 Claims

An electrostatic pump for pumping liquids, comprising a body, said body being divided into an upstream region including an upstream chamber and a downstream region including a downstream chamber;

an injection electrode disposed in said upstream region, said electrode having a sharp electrically conducting tip;

a collector electrode disposed in said downstream region and separated from said injection electrode by said downstream chamber;

a channel communicating between said upstream chamber and said downstream chamber, said channel terminating in a portion of reduced cross-section at its downstream end.

electrical connections to provide an electrical connection from a high voltage generator to said injection and collector electrodes to maintain an electrical potential of the order of kilovolts therebetween;

said channel at the region of the tip of said injection electrode conforming to the surface configuration of said tip whereby the liquid being pumped flows past said tip in laminar non turbulent flow through said portion of reduced stream chamber being of larger cross-section than the channel at its portion of reduced cross-section.

Compl. specn. 15 pages.

Drgs. 8 sheets

CLASS : 130 I & 130 F

159988

Int. Cl. : C22b—19/22, 19/00.

PROCESS FOR RECOVERING ZINC FROM ZINC CONTAINING SULPHIDE MATERIALS AND ZINC OXIDE CONTAINING MATERIALS.

Applicant : SHERRITT GORDON MINES, LIMITED, A COMPANY ORGANISED UNDER THE LAWS OF THE PROVINCE OF ONTARIO, HAVING ITS HEAD OFFICE AT 2800 COMMERCE COURT WEST, TORONTO, ONTARIO, CANADA.

Inventors : DONALD ROBERT WEIR, IAN MARTIN MASTERS AND BARRY NEVILLE DOYLE.

Application for Patent No. 495/Del/1983 filed on 21st July 1983.

Convention date 27-7-1982/8221662/(U.K.).

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

#### 5 Claims

A process for recovering zinc from zinc containing sulphidic materials and zinc oxide containing materials comprising leaching zinc containing sulphidic material and zinc oxide containing material together under pressurised oxidising conditions in any known manner at a temperature in the range of from 130 to 170°C in aqueous sulphuric acid solution with a stoichiometric excess of sulphuric acid relative to the zinc content of the materials of from 40 to 100% to produce a residue containing elemental sulphur and at least one metal value of either silver or lead and a leach solution containing a major proportion of the zinc and iron, separating in any known manner the residue from the leach solution and raising the pH of the leach solution by addition of zinc containing material such as zinc containing sulphidic materials and/or zinc oxide containing materials to a value in the range of from 4.5 to 5.5 in an iron removal step to cause precipitation of at least some of the dissolved iron from the leach solution as an iron compound, separating in any known manner the precipitated iron compound from the remaining leach solution and treating in a manner such as herein described the remaining leach solution to recover zinc.

Compl. specn. 17 pages.

Drg. 1 sheet

CLASS : 32 F, F<sub>A</sub>(-)

159989

Int. Cl. : C 07 c 69/00, C 08 f 15/00.

PROCESS FOR PREPARING AN UNSATURATED HOMOPOLYMERIZABLE AND/OR COPOLYMERIZABLE LINEAR POLYESTER.

Applicants : BASF FARBEN + FASERN AKTIEGESELLSCHAFT, A GERMAN COMPANY, OF AM NEU-MARKT 30, 2000 HAMBURG 70, FEDERAL REPUBLIC OF GERMANY.

Inventors : GUNTHER HEGEMANN AND KARIN MIEDECK.

Application for Patent No. 506/Del/1983 filed on 25th July, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

### 3 Claims

A process for preparing an unsaturated homopolymerizable and/or copolymerizable linear polyester from diols of the kind such as herein described and at least one unsaturated dicarboxylic acid of the kind such as herein described or derivatives thereof capable of ester formation, which comprises reacting with one another at one and the same time a diol having terminal hydroxyl groups and a mean molecular weight of 700-1,200 as component A, one or more — unsaturated dicarboxylic acids from the group consisting of maleic acid, fumaric acid, itaconic acid, citraconic acid, mesaconic acid and aconitic acid or derivatives thereof, as component B, and a linear diol having 2-6 carbon atoms, as component C, the equivalence ratio of A : B being 0.8 : 1 to 1.2 : 1 and the equivalence ratio of C : (A+B) being 0.5 : 1 to 1 : 1.

Compl. specn. 17 pages.

Drg. 6 sheets

CLASS : 108 C<sub>a</sub>

159990

Int. Cl. : C 21 c 7/00.

### A PROCESS OF SUBSURFACE PNEUMATIC REFINING OF A STEEL MELT.

Applicant : UNION CARBIDE CORPORATION, MANUFACTURERS, A CORPORATION ORGANISED AND EXISTING UNDER THE LAWS OF THE STATE OF NEW YORK, UNITED STATES OF AMERICA, LOCATED AT OLD RIDGEBURY ROAD, DANBURY, STATE OF CONNECTICUT, 06817, U.S.A.

Inventor : BALKISHAN AGRAWAL.

Application for Patent No. 23/Del/84 filed on 5th January, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

### 20 Claims

A process of subsurface pneumatic refining of a steel melt wherein calcium carbide is oxidized to provide heat to the melt, the improvement comprising :

- providing a bath having dissolved in the melt oxidizable component(s) of the kind as described herein in an amount, when oxidized to provide sufficient acidic component(s) to flux the products of the oxidation of calcium carbide provided to the melt in step (b);
- providing calcium carbide to the melt;
- providing oxygen to the melt to oxidize said oxidizable component(s) at a rate such that the time period that the bath contains both said oxidizable component(s) and calcium carbide provided to the melt in step (b) does not exceed about 5 minutes;
- after step (c), oxidizing the calcium carbide to provide heat to the melt.

Compl. specn. 19 pages.

Drg. 2 sheets

CLASS : 39 G 201C

159991

Int. Cl. : C 01 f—7/00.

### PROCESS FOR THE TREATMENT OF SODIUM CRYOLITE CONTAINING WASTE FOR THE RECOVERY THEREFROM OF FLUORINE VALUES.

Applicant : ALCAN INTERNATIONAL LIMITED, A COMPANY INCORPORATED UNDER THE LAWS OF CANADA, OF 1188 SHEPPARD AVENUE WEST, MONTREAL, QUEBEC, CANADA.

Inventor : GORDON LEVER.

Application for Patent No. 39/Del/84 filed on 12th January, 1984.

Convention date 25-1-83/8301974 (Great Britain).

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

### 10 Claims

A process for the treatment of sodium cryolite containing waste for the recovery therefrom of fluorine values and the simultaneous conversion of such waste to waste having a reduced cryolitic concentration permitted to be discharged as an ecologically acceptable landfill which process comprises digesting said waste with an aqueous caustic soda solution for a time sufficient to convert the sodium cryolite contained therein to sodium fluoride, removing the treated waste from the resulting solution and extracting in a manner known per se NaF from said solution, if desired, converting the sodium fluoride to an aqueous solution by any known method and subjecting said solution to a step of electroanalysis to produce hydrogen fluoride.

Compl. specn. 26 pages.

Drg. 4 sheets

CLASS : 40F & 55F

159992

Int. Cl. : B67c 7/00.

### METHOD AND APPARATUS FOR AUTOMATIC DILUTION.

Applicant : LABORATOIRES BOIRON SA, S. S 20 RUE DE LA LIBERATION, 69110 SAINTE-FOY-KFS LYON, FRANCE, A COMPANY ORGANISED UNDER THE LAWS OF THE FRANCE.

Inventors : JEAN BOIRON, CHRISTIAN BOIRON, JACKY ABECASSIS & ANDRE MARCEL FAVIER.

Application for Patent No. 164/Del/84 filed on 24th February, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

### 14 Claims

An automatic dilution apparatus for processing at least one bottle comprising :

- bottle clamping means for securing said at least one bottle;
- fluid supply means for selectively supplying said at least one bottle with said predetermined amount of fluid;
- shaking means selectively imparting a shaking motion to said bottle clamping means such that a portion of said tincture dissolves in said fluid to produce said solution;
- solution intake means selectively operable to draw said solution from said at least one bottle;
- automatic control means sequentially controlling said fluid supply means, said shaking means, and said intake means to repeatedly produce said solution from said predetermined amount of said fluid; and
- automatic counting means counting the number of cycles of operation controlled by said automatic control means.

Compl. specn. 15 pages.

Drg. 5 sheets

CLASS : 27 I

159993

Int. Cl. : C 08 i 1/00 & 1/36.

### METHOD OF MANUFACTURING A MEMBRANE USEFUL AS WATERPROOF COVERING FOR ROOFS, LINERS FOR PONDS AND PITS AND THE LIKE.

Applicant : UNIROYAL, INC., A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF NEW JERSEY, ONE OF THE UNITED STATES OF AMERICA, HAVING AN OFFICE AT 1239 AVENUE OF THE AMERICAS, NEW YORK, NEW YORK 10020, U.S.A.

Inventors : ARNIS URI PAEGLIS & EBON PAUL WEAVER.

Application for Patent No. 175/Del/1984 filed on 28th February, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

### 9 Claims

A method of manufacturing a membrane useful as waterproof covering for roofs, liners for ponds and pits and the like, said method comprising :

- (a) forming in a manner as herein described a first sheet and a second sheet which may be same or different from said first sheet of an elastomeric composition comprising :

a neutralized acid group containing elastomeric polymer of the kind such as herein described, said neutralized acid group containing a cation selected from the group consisting of ammonium, antimony, aluminum, iron, lead and a metal of Group 1A, 11A, 1B or 11B of the Periodic Table of Elements and mixtures thereof;

a non-polar process oil of the kind as herein described;

carbon black; and

a preferential plasticizer of the kind as herein described;

- (b) heat sealing at least one edge of said first sheet to at least one edge of said second sheet.

Complete specification 25 pages.

CLASS : 147 E

159994

Int. Cl. : G11b 5/00.

### MAGNETIC RECORDING MEDIUM.

Applicant : THE B.F. GOODRICH COMPANY, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF NEW YORK, U.S.A., OF 277 PARK AVENUE, NEW YORK 10017, U.S.A., AND WITH BUSINESS OFFICES AT 500 SOUTH MAIN STREET, AKRON, OHIO 44318, U.S.A.

Inventor : EDMOND GEORGE KOLVCHICK & LAWRENCE ONDERCIN.

Application for Patent No. 240/Del/84 filed on 16th March, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

### 11 Claims

A magnetic recording medium such as herein described having high tensile strength and improved hydrolytic stability comprising a substrate, magnetic particles, and a binder bonding said magnetic particles to said substrate, said binder comprising polycarbonate-based polyurethane polymer comprising a reaction product of a diisocyanate and a blend of a hydroxyl terminated polycarbonate and a chain extender such as herein defined.

Complete specification 16 pages.

Drg. 1 sheet

CLASS : 32. F. 2.b.

159995

55.E. 4

Int. Cl. : C 07 d 99/00.

PROCESS FOR THE PREPARATION OF 1-OXO-1H-THIAZOLO [3, 2-a]. PYRIMIDINE-2-CARBOXAMIDES.  
2—117 GI/87

Applicant : PHIZER INC., A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF DELAWARE, UNITED STATES OF AMERICA, OF 235 EAST 42ND STREET, NEW YORK, STATE OF NEW YORK, UNITED STATES OF AMERICA.

Inventor : SAUL BERNARD KADIN.

Application for Patent No. 334/Del/84 filed on 18th April, 1984.

Divisional to application no. 760/Del/80 filed on 15th October, 1980.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-5.

### 3 Claims

A process for the preparation of a compound of formula II wherein

$R_1$  and  $R_2$  taken together are alkylene of 3 to 9 carbon atoms or phenylalkylene of 9 to 11 carbon atoms, with the proviso that the ring system so formed is 5- to 8- membered; and

$R_1$  and  $R_2$  taken separately are each hydrogen or alkyl of 1 to 5 carbon atoms and when  $R_2$  is hydrogen,  $R_1$  is other than hydrogen or methyl, said compound is prepared by heating in aqueous acid such as herein described a compound of the formula V wherein  $R_1$  and  $R_2$  are as defined above and  $R_3$  is lower alkyl of 1 to 3 carbon atoms.

Compl. specn. 89 pages.

Drgs. 5 sheets

CLASS : 69 A & E

159996

Int. Cl. : H01h 1/56 & 3/02.

### IMPROVED MAKE BREAK CONTACT DEVICE.

Applicant : SUNIL MORVIN SIMON, AN INDIAN CITIZEN, OF HOUSE NO. 311, MASIHA GANJ, BATES COMPOUND, SIPRI BAZAAR, JHANSI-284001, UTTAR PRADESH, INDIA.

Inventor : SUNIL MORVIN SIMON.

Application for patent No. 486/Del/84 filed on 14th June, 1984.

Complete specification left on 13th February, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-5.

### 12 Claims

An improved make break contact device for the activation and deactivation of a plurality of electrical circuits, which comprises a disc, a plurality of contact means provided in a circular path on said disc, rotatable means mounted at substantially the centre of said disc and comprising at least one radially extending arm adapted to rotate over the surface of said disc in a plane substantially parallel thereto whereby said arm alternately engages and disengages from each contact means provided on the surface of said disc, such engagement and subsequent disengagement causing one or more circuits connected to each said contact means to close and open.

(Provisional specification 5 pages

Drg. 1 sheet)

Compl. specn. 11 pages.

Drg. 1 sheet

Ind Cl. 45 E+173 A

159997

Int. Cl. B 05b-1/12, B 05c-1/02.

Title : A NOVEL JET SPRAY DEVICE FOR WESTERN STYLE COMMUNES AND THE LIKE FOR PERSONAL HYGIENE.

Applicant : NAGINBHAI KHUSHALBHAI PATEL, AN INDIAN CITIZEN, 12 A-2 SINDHI COLONY, SION, BOMBAY-400022, MAHARASHTRA, INDIA.  
Application No. 125/BOM/1984 filed on 26th April, 1984.

Complete after provisional left on 6th June, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Bombay Branch.

#### 4 Claims

A jet spray device for western style commode and the like sanitary fittings for personal hygiene comprises a combination of a clamp plate made from metal or chemically inert plastic sheet material, said plate having a pair of slots aligning with corresponding fixing bolts for commode seat provided at rear end of a commode, said clamp plate having a bracket at its one side forming a seat for rotatably mounted straight side of bent tube pipe section fitted with a stopcock and a grip for rotating about its axis a quarter turn to bring it into operating position, and the bent end side of said tube pipe section is fitted with a spray nozzle which in its non-operating position remains parallel with concave inner wall side of commode and said stopcock is connected to an outlet of a flushing tank or an overhead tank in the usual manner.

Provisional specification 5 pages, Drawings 2 sheets.

Compl. specn. 8 pages. Drgs. 1 sheet

Ind. Cl : 5A(I(1)); 160D [II(3)] 159998

Int. Cl. : B62 d-51/04, 55/00.

Title : A SINGLE CHAIN TRACK CRAWLER TRACTOR FOR USE IN AGRICULTURAL OPERATIONS.

Applicant & Inventor : TUKARAM KUNDLIK DHONDE, PLOT NO. 26, SECTOR NO. 24, GANGANAGAR, NIGDI, POONA-411004, MAHARASHTRA, INDIA.

Application No. 132/BOM/1984 filed May 3, 1984.

Complete after provisional left June, 27, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Bombay Branch.

#### 4 Claims

A single chain track crawler tractor for uses in agricultural operations comprising a rhombus/square/rectangular shaped chassis frame with a prime mover in its centre or on one side thereof with accessory mechanism such as a gear box with power take-off shaft fitted with a combination of sprocket wheel and a V-pulley said sprocket wheel driving a front single chain track wheel and said V-pulley driving a pump mounted on said chassis frame, a fuel tank connected to said prime mover, control levers accessible from a pair of handle bars adjustably which is further extended rearwardly to form a draw bar having means for attaching thereto any agricultural implements or a trailer in the usual manner, said chassis frame having tandem mounted four single chain track wheels, one each mounted in-between the four corners of said chassis frame and connected by a single endless crawler chain track forming a self supporting means for said tractor, and the lower front single chain track wheel is fitted with a fixed sprocket wheel linked to said sprocket wheel on said power take-off shaft by a roller chain drive and forms a driving wheel for said tractor while the said rear chain track wheel is a driven wheel and said upper two chain wheels are idling wheels, and a boat shaped guide cum-bumper guard is detachably attached to the lower front end of said chassis forming a means for lifting, clearing obstruction caused by stray vegetation along the pathway between adjacent rows of vegetation in agricultural farms and the like.

Compl. specn. 9 pages.

Drgs. 3 sheets

Prov. Specn. 4 pages, Drg. 1 sheet.

Ind. Cl. : 27 A

159999

Int. Cl. : F 01 d - 15/12.

A PORTABLE BRIDGE.

Applicant & Inventor : NEMICHANDRA DADA, GANESHWADE, 12 KOTHIRUD INDUSTRIAL ESTATE, KOTHIRUD, POONA-411029, MAHARASHTRA, INDIA.

Application No. 169/BOM/1984 filed Jun. 11, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Bombay Branch.

#### 24 Claims

A portable bridge for use across opposite embankments of a stream, canal or river comprising one base frame supported on an embankment of the stream canal or river, a rotatable frame mounted on the base frame, a bridge frame supported on and secured to said base frame, by connecting members at least one base extender secured at one end to the end of the bridge frame on the side away from the base frame and at least one extension panel fixed to the other end of the base extender, the extension panel being supported at its other end by means provided on the opposite embankment, the base frame, the bridge frame, base extension panel being made of members of structural steel.

Compl. specn. 18 pages.

Drgs. 3 sheets

Ind. Cl. : 26 [XL III(1)]

160000

Int. Cl. : B 08 b-1/04.

Title : A DEVICE FOR CLEANING THE DOMESTIC WATER FILTER CANDLES.

Applicant & Inventor : MOHAN MAHADEV GUPTA, 12 MULUND ASHIRWAD, G.V.S. ROAD, NO. 1, NEAR POST OFFICE, MULUND EAST, BOMBAY-400081, MAHARASHTRA, INDIA.

Application No. : 165/BOM/1984, filed June 2, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Bombay Branch.

#### 11 Claims

A device for cleaning the domestic water filter candles comprising a hollow cylindrical body open at the bottom end and provided with a dome shaped cover at the top end, the said dome shaped cover is provided with a projecting out gripping handle and the said body is provided at the bottom end with a circular groove at its bottom inner surface, the said dome shaped cover is provided with one or more grooves at its inner surface, the said grooves in the body as well as dome shaped cover are provided with bristles projecting out the inner surface of the said body and cover.

Compl. specn. 6 pages.

Drgs. 2 sheets

Class : 195 A+B+D.

Int. Cl. : F 16 k 15/04, 21/08.

FOOT VALVES AND NON-RETURN VALVES HAVING IMPROVED EFFICIENCY.

Applicant & Inventor : ERUCHSHA NARIMAN CONT-RACTOR C/102 VAIBHAV APARTMENTS, OLD PRABHADEVI ROAD, WORLI, BOMBAY-400025, MAHARASHTRA, INDIA.

Application No. 188/BOM/1984 Filed on June 30, 1984.

Complete after provisional left on June 24, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Bombay Branch.

#### 2 Claims

A Foot Valve or other non-return valve consisting of a body containing a float/ball having specific Gravity the same or upto 5% more than the specific Gravity of the liquid

being pumped; fitted with a guide rod, made from a suitable metal or plastic, to guide the float/ball into the open or closed position, and such that when the valve is not working the ball is down, and when the Foot Valve is working the float/ball gets entirely out of the way of the flowing water, providing a straight and unobstructed passage to the flow of water.

Provisional Specification 3 pages Drawings 1 Sheet.

Complete Specification 4 pages Drawings 2 Sheets.

CLASS : 163 B 2 & B 3 [XLIV(3)]

160002

Int. Cl. : FO 4 C—15/00.

### ELASTOMERIC HELICAL PATH ROTARY PUMP.

Applicant & Inventor : NIRMAL PANNALAL, C/O PANNALAL METAL INDUSTRIES, BADORA, BETUL, MADHYA PRADESH, INDIA-460002.

Application No. 191/Bom/1984 filed on July 3, 1984.

Provisional left on July 4, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Bombay Branch.

### 3 Claims

An Elastomeric helical path rotary pump comprising a hollow cylinder, a helically curved elastomeric tube disposed within said cylinder, a removable upper cylinder cap and a lower cylinder cap, said cylinder caps having centrally located anti-friction bushes for rotatably supporting a drive shaft ends therein, said driveshaft having two interspaced flanges, a plurality of revolvable cylindrical rollers mounted between said flanges, said revolvable cylindrical rollers disposed substantially parallel to said driveshaft, said driveshaft and said rollers assembly disposed centrally within cylindrical hollow space formed by said helically curved elastomeric tube, said revolvable cylindrical rollers squeezing said helically curved elastomeric tube against walls of said hollow cylinder thereby closing bore of said helically curved elastomeric tube, lower end of said helically curved elastomeric tube opening into said lower cylinder cap forming the suction end owing to resilience of said helically curved elastomeric tube upper end of said helically curved elastomeric tube opening into said upper cylinder cap forming the delivery end, said drive shaft having a collar at lower end thereof adapted to rest on a corresponding collar provided on said bush of said lower cylinder cap sustaining thereon weight of said driveshaft and said cylindrical rollers assembly.

Compl. specn. 7 pages.

Drg. 2 sheets

Provisional specn. 5 pages.

Drg. 1 sheet

CLASS : 40 B

160003

Int. Cl. : C 01 g—53/00.

### NICKEL BORIDE-POLYMER IN-OIL CATALYST AND PROCESS FOR PREPARING SAME.

Applicants : HINDUSTAN LEVER LIMITED, OF HINDUSTAN LEVER HOUSE, 165/166 BACKBAY RECLAMATION, BOMBAY-400 020, MAHARASHTRA, INDIA.

Inventors : (1) CORNELIS VAN DIJK AND (2) RUDOLPH OTTO DE JONGH.

Application No. 202/Bom/1984 filed on July 20, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Bombay Branch.

### 8 Claims

A finely divided nickel boride catalyst stabilized with a linear organic polymer, characterized in that nickel boride with a stabilizing linear organic polymer as herein described is suspended in a fatty compound as herein described.

Compl. specn. 11 pages.

Drg. Nil

CLASS : 141 C

160004

Int. Cl. : B 01 F—6/00, E 21 C—37/16.

### THE PROCESS FOR UPGRADING AND CALCINATION OF LOWGRADE/OFF GRADE KYANITE TO HIGH GRADE CALCINED PRODUCT.

Applicant & Inventor : VAJIDYANATHAN VENKITCHALAM, 6 GOKUL, NEW SUDHA HOUSING SOCIETY LTD., MULUND (W), DR. R. P. ROAD, BOMBAY-400 080, MAHARASHTRA, INDIA.

Application No. 233/Bom/1984 filed on August 23, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Bombay Branch.

### 9 Claims

A process for upgrading the low grade/off grade Kyanites such as herein described by treating in a reactor as herein described, which comprises :

- Calcining the said low grade Kyanite in a reactor by using metallurgical coke with oxides of zinc and chromium in any known paraffin medium at the optimum temperature in a reducing atmosphere.
- Cooling the above calcined lumps of Kyanite by blowing air.
- Discharging the said calcined lumps from the reactor.
- Dressing the above calcined lumps to remove the outer crust of coke ash.
- Removing the impurities by using a high intensity magnet.

Compl. specn. 8 pages.

Drg. Nil

CLASS : 63 E

160005

Int. Cl. : H 02 K—9/06.

### AN INTERNALLY CUM EXTERNALLY FORCE COOLED ROTATING TYPE ELECTRIC MACHINE WITH SHAFT MOUNTED FAN.

Applicant : CROMPTON GREAVES LTD., 1, DR. V. B. GANDHI MARG, BOMBAY-400 023, MAHARASHTRA, INDIA.

Inventors : (1) MAKARAND MADHUKAR OKA & (2) SATCHIDANAND YASHWANT KULKARNI.

Application No. 250/Bom/ 1984 filed on Sep 6, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Bombay Branch.

### 8 Claims

An internally cum externally force cooled rotating type electric machine with shaft mounted fan, said machine comprising a stator case, a rotor mounted on a shaft, said shaft being rotatably mounted in and between a pair of end shields which are supported on said stator case, said shaft extending beyond said end shields, said rotor being disposed in said stator with a clearance therebetween and said rotor being rotatable in said stator in association with said shaft, air inlet(s) with screen being provided in one of said end shields, air space or path provided between said stator and stator case, air outlet(s) with screen being provided in the other of said end shields, a double suction cum double discharge fan comprising a web provided with a hub and a plurality of radial blades on opposite surfaces thereof, said hub having a hole therethrough, said fan being mounted on one end of said shaft extending beyond said other end shield through said hole and a fan cover enclosing said fan, said fan cover being supported on the outer surface of said stator case and/or on said other end shield and provided with air inlet(s), the blades on one of said surfaces of said web confronting said air outlet(s) provided in said other end shield and the blades on the other of said surfaces of said web confronting said air inlet(s) provided in said fan cover, while said fan

rotates with said shaft, said blades on said one surface of said web such in atmospheric air through said inlet(s) with screen provided in said one end shield and along said air space or path and clearance and through said air outlet(s) provided in said other end shield, and air while being sucked through said air space or path and clearance carries away the heat being generated in said machine during its working thereby getting itself heated up and cooling said machine internally by conducting and convection, the heated up air being discharged at the tips of said blades on said one surface of said web, said blades on said other surface of said web simultaneously sucking in atmospheric air through said air inlet(s) provided in said fan cover and discharging said atmospheric air at the tips thereof, said fan cover guiding the heated up air being discharged at the tips of said blades on said one surface of said web and the atmospheric air being discharged at the tips of said blades on said other surface of said web onto the outer surface of said stator case, while being guided, said heated up air and atmospheric air getting mixed up with each other and cooling said machine externally by radiation and convection.

Compl. specn. 13 pages.

Drg. 4 sheets

CLASS : 189

160006

Int. Cl. : A 61 K—7/16.

**A STABLE GAS ENTRAINED TOOTHPASTE HAVING INCREASED VISCOSITY AND FLUFFY APPEARANCE.**

Applicant : HINDUSTAN LEVER LIMITED OF HINDUSTAN LEVER HOUSE, 165/166, BACKBAY RECLAMATION, BOMBAY-400 020, MAHARASHTRA, INDIA.

Inventor : MINOO MOTARJEMI.

Application No. 266/Bom/1984 filed on September 25, 1984.

Convention priority date September 28, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Bombay Branch.

#### 1 Claim

A stable gas entrained toothpaste having increased viscosity and fluffy appearance characterised in that gas bubbles of size range 10 to 30 microns are entrained in the toothpaste in an amount of 10 to 20% by volume of the toothpaste.

Compl. specn. 8 pages.

Drg. 1 sheet

CLASS : 81 + 173 B

160007

Int. Cl. : A 62 C 37/16, 37/34.

**A HOUSING FOR A HEAD OF SPRINKLER USED FOR FIRE FIGHTING.**

Applicants : WORMALD INTERNATIONAL LIMITED, A COMPANY INCORPORATED UNDER THE LAWS OF THE STATES OF NEW SOUTH WALES, CNR. ALEXANDER & ERNEST STREETS, CROWS NEST, NEW SOUTH WALES 2065, AUSTRALIA.

Inventor : BARRY FRANCIS BYRENE.

Application No. 268/Bom/1984 filed on September 26, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Bombay Branch.

#### 5 Claims

A housing for a head of sprinkler used for fire fighting of the kind including a frame attachable to a fluid line, and fluid valve and confronting fluid disseminator on the frame and separated by a heat-responsive element, said housing comprising a base for support by said frame, an open-ended

hollow body screwed/attached on to said base to encircle said sprinkler head, a cap to conceal said sprinkler head, and a heat-responsive releasable connection between said cap and said body, said connection being characterised by a plurality of spaced studs each having a foot portion at one end attached to a concealed part of said cap by heat-responsive releasable means such as herein described, a narrowed portion near the other end extending from an intermediate shoulder and passed through a hole in said body and bent to lock said cap upon said body with said shoulder spacing said cap from said body.

Compl. specn. 6 pages.

Drg. 2 sheets

CLASS : 42A4

160008

Int. Cl. : A 24 c—5/12, 5/30.

**A CUTTING DEVICE FOR CONTINUOUS RODS OF SMOKING PRODUCERS.**

Applicant : G. D. SOCIETA PER AZIONI, OF VIA POMPONIA 10, 40100 BOLOGNA, ITALY, AN ITALIAN COMPANY.

Inventors : ENZO SERAGNOLI AND RICCARDO MATTEI.

Application for Patent No. 167/Del/1983 filed on 14th March 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

#### 8 Claims

A cutting device for continuous rods of smoking products, in particular cigarettes, comprising a blade carrier head rotatable about a first axis the inclination of which is adjustable by any known means and provided with at least one outer radial blade disposed in an inclined position with respect to the said first axis, a grinding wheel carrier head mounted on a support for rotation with respect to said support about a second axis substantially perpendicular to the said first axis and facing the outer periphery of the said blade carrier head, a drive train between the said blade carrier head and the said grinding wheel carrier head for driving this latter to rotate about the said second axis in a determined phase relation with the angular position of the said blade carrier head about the said first axis, a grinding wheel mounted eccentrically on the said grinding wheel carrier head and able to cooperate with a cutting edge of each said blade, adjustment means for adjusting the eccentricity of the said grinding wheel, and drive means for driving the said grinding wheel to rotate about a third axis parallel to the said second axis, characterised by the fact that said grinding wheel carrier head includes an eccentric balancing mass, the said adjustment means being capable of simultaneously displacing, in opposite senses and a direction transverse the said second axis, both the said grinding wheel and the said balancing mass, and the said drive means including a pneumatic motor located in said grinding wheel carrier head and connected to said grinding wheel.

Compl. specn. 17 pages.

Drg. 2 sheets

CLASS : 32 F 1 [IX(1)], 32 F 2(b) [IX(1)] & 55 D 2[XIX(1)]

160009

Int. Cl. : C 07 c-103/00.

**A PROCESS FOR THE PREPARATION OF HETEROCYCLIC AMIDES OF PHENOXY-PHENOXY-ALKANOIC ACIDS.**

Applicant(s) : VELSICOL CHEMICAL CORPORATION, OF 341 EAST OHIO STREET, CHICAGO, ILLINOIS-60611 U.S.A., A CORPORATION OF THE STATE OF DELAWARE, U.S.A.

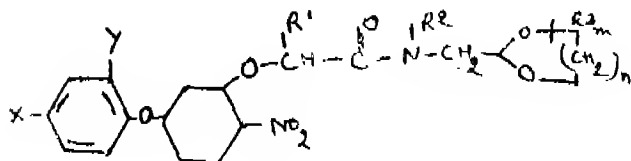
Inventor : TAKEO HOKAMA.

Application for Patent No. 211/Del/1983 filed on 31st March, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

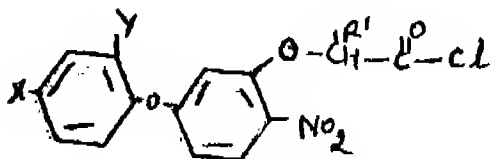
## 7 Claims

A process for the preparation of a compound of Formula I



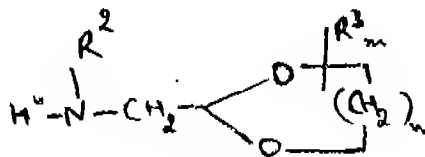
Formula I

shown in the accompanying drawings which comprises reacting an acid chloride of the Formula II wherein X is halogen or



Formula II

trifluoromethyl; Y is selected from the group consisting of hydrogen, halogen, nitro and cyano; and R<sup>1</sup> is alkyl; with an amine of the Formula III wherein R<sup>2</sup> is selected from



Formula III

the group consisting of hydrogen; alkyl, alkenyl and alkynyl; R<sup>3</sup> is selected from the group consisting of alkyl and halogen; m is an integer from 0 to 3; and n is the integer 0 or 1 in an inert organic solvent in the presence of an acid acceptor at a temperature from about -30°C to room temperature.

Compl. specn. 28 pages.

Drg. 1 sheet

CLASS : 9D & 33H

160010

Int. Cl. : C 22 C 39/32.

# METHOD FOR PRODUCING WORK-HARDENABLE AUSTENITIC MANGANESE STEEL.

Applicants : VEREINIGTE DEELSTAHLWERKE AKTIENGESSELLSCHAFT (VEW), OF ELISABETHSTRASSE 12, 1010 VIENNA, AUSTRIA, AN AUSTRIAN COMPANY.

Inventor : BERND COS.

Application for Patent No. 233/Del/83 filed on 7th April, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 7 Claims

A process for producing a work hardenable austenitic manganese steel casting or ingot, having an elongation at

rupture of 10% to 80% and improved mechanical strength and the following contents in % by weight.

0.7	to	1.7 C
5.0	to	18.0 Mn
0	to	3.0 Cr
0	to	4.0 Ni
0	to	2.5 Mo
0.1	to	0.9 Si
up to		0.1 P

the remainder being made of iron, microalloying elements selected from Ti, Zr and V and impurities arising during casting process, said elongation at rupture and the improved mechanical strength being due to the presence of said micro-alloying elements which comprises :

Melting a charge in an electric furnace, after which conventional lime containing and slag-forming additives are added in predetermined amounts to said molten charge, raising charge to a tapping temperature of 1450°C to 1600°C, deoxidizing the melt with an element having an affinity for oxidation, and then tapping the charge into a casting ladle, characterized by maintaining in said charge, the ratio of carbon to manganese in the range of from 1 : 4 to 1 : 14, adding said micro-alloying elements to the casting ladle, the amount of said micro-alloying elements being upto 0.05% by weight of Ti, upto 0.05% by weight of Zr and upto 0.05% by weight of V, the sum of Ti+Zr+V being in the range of from 0.002 to 0.05% by weight, pouring the melt at a temperature of between 1420°C and 1520°C, cooling the casting and then heating it again to an austenitizing temperature of from 980°C to 1150°C and quenching said melt.

Complete specification 13 pages.

CLASS : 63 A 2 & 63 B

160011

Int. Cl. : H 02p, 1/42.

# A MODIFIED STARTER FOR A SINGLE PHASE INDUCTION MOTOR.

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH.

Inventors : RABINDERA NATH ROY & PRABHOKAR SAYANNA TELLEWAR.

Application for Patent No. 286/Del/1983 filed on 6th May 1983.

Complete specification left on 6th June, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 3 Claims

A modified direct on-line starter for single phase induction motor comprising an overload protector, (4) the inputs (1 & 2) of which are connected to the mains and the outputs (7 & 8) connected through contact points of a contactor (3) to the running and common points of the motor one of the terminals of the no volt coil is connected to the input terminal (19) connected to a ON/START push button switch (6) through a STOP RESET push button switch (5) characterised in that the ON/START push button switch has three contact points, two points being connected in the conventional manner and the third point connected to the terminals of the running winding motor so that when the starter is pressed the circuit is completed and the main contactor is activated passing the current both to the starting and running windings of the motor.

Provisional specification 5 pages.

Compl. specn. 7 pages.

Drg. 4 sheets

CLASS : 151 E

160012

Int. Cl. : F 161—55/00.

A DEVICE FOR EMPTYING A FLUID FROM A PIPE AND FOR SIMULTANEOUSLY FILLING THE PIPE WITH ANOTHER FLUID.

Applicant : ANTONIO ROGNONI, AN ITALIAN CITIZEN OF VIA FARUFFINI 11-PAVIA, ITALY.

Inventor : ANTONIO ROGNONI.

Application for Patent No. 349/Del/1983 filed on 25th May 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 7 Claims

A device for emptying a fluid from a pipe and for simultaneously filling the pipe with another fluid while preventing the fluids from mixing, comprising :

- a support member having a head end for insertion in the pipe for emptying a fluid from the pipe;
- a sealing means attached to the head end of said support member so that when the device is inserted in the pipe the sealing means presses against the inner walls of the pipe thereby preventing the fluid being emptied from the pipe from mixing with the fluid filling the pipe;
- a braking means attached to said support member for slowing the movement of the fluid filling the pipe thereby causing the pressure of the filling fluid to be greater than the pressure of the emptying fluid to produce a braking action that increases as the velocity of the filling fluid increases;
- a sliding means contacting the inner walls of the pipe and a gear means connected between said sliding means and said braking means for driving said braking means; and
- a drying means attached to said support member adjacent and behind said head end thereof as the device is inserted into the pipe for collection of any residual amounts of the fluid being emptied from the pipe.

Compl. specn. 12 pages.

Drg. 6 sheets

CLASS : 70B [VIII(5)]

160013

Int. Cl. : B 01 k 3/10.

A POROUS SHEET DIAPHRAGM OF AN ORGANIC POLYMERIC MATERIAL FOR AN ELECTROLYTIC CELL AND THE METHOD OF PREPARATION THEREOF.

Applicant : IMPERIAL CHEMICAL INDUSTRIAL PLC., OF IMPERIAL CHEMICAL HOUSE, MILLBANK, LONDON SW1P 3JF, ENGLAND, A BRITISH COMPANY.

Inventors : JOHN FRANCIS CAIRNS & GAWIN WILLIAM COWELL.

Application for Patent No. 380/Del/1983 filed on 6th June, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 19 Claims

A porous sheet diaphragm of an organic polymeric material for an electrolytic cell containing throughout the thickness of the sheet at least one wetting agent which is a substance capable of increasing the time for which the sheet remains permeable to an aqueous solution of an electrolyte, characterised in that the concentration of the said substance in that the part of the sheet near to one or to both outer surfaces of the sheet is at least 10% greater than the concentration of the said substance in that part of the sheet remote from the outer surfaces of the sheet.

(Complete specification 23 Pages)

CLASS : 206 C

160014

Int. Cl. : G 01 s 9/04 1/00.

PROXIMITY RADAR FOR DETECTING A TARGET.

Applicant : SOCIETE NATIONALE D'ETUDE ET DE CONSTRUCTION DE MOTEURS D'AVIATION "S.N.E.C.M.A." OF 2 BOULEVARD VICTOR 75015 PARIS, FRANCE, A COMPANY ORGANISED AND EXISTING UNDER THE LAWS OF FRANCE.

Inventors : PATRICE CHARLES GASTON DELON, GERARD DANIEL FOURREAUX, MICHEL JACQUES ROBERT NICOLAS & BRUNO ROGER SEBILET.

Application for Patent No. 409/Del/83 filed on 16th June, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 5 Claims

A proximity radar for detecting a target when the radar is at a predetermined distance from said target, said radar comprising :

- means for transmitting towards the target a signal phase modulated in accordance with a pseudorandom sequence or logic bits produced at a control frequency;
- means for receiving the transmitted signal after reflection from said target said receiving means being connected to said transmitting means, time delay means connected to said transmitting means for producing an output of a signal corresponding to the transmitted signal which is delayed by a selected time interval;
- means for correlating the received signal with the output signal of the time delay means said correlating means being connected between said time delay means and said transmitter and receiver means, an amplifier connected to said correlating means for amplifying the output of said correlating means;
- means connected to said correlator means for alternately setting said selected time interval to times corresponding to the duration of n and n' bits of said pseudorandom sequence or logic bits, where n' is less than n and the duration of n bits corresponds to the time taken for the signal to travel twice said predetermined distance, and an automatic gain control circuit connected to and for controlling said amplifier when said time interval corresponds to n' bit, said automatic gain control device being inoperative when said time interval corresponds to n bits.

Compl. specn. 13 pages.

Drg. 2 sheets

CLASS : 182 A

160015

Int. Cl. : C 13 j 1/00.

A PROCESS FOR THE PRETREATMENT OF MOLASSES.

Applicant : CENTRAL DISTILLERY & BREWERIES LTD., OF 20 NETAJI SUBHASH MARG, NEW DELHI-110002, AN INDIAN COMPANY.

Inventor : PRABODH SHANKER VISHNOI.

Application for Patent No. 414/Del/1983 filed on 18th June, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 8 Claims

A process for the pretreatment of molasses for use in the step of fermentation which comprises in diluting the molasses to have a solid content of less than 40% to form a wash, adding a known acid to the wash characterized in that the wash upon addition of the acid has a pH of 1.5 to 4.5 and adding a flocculating agent to the wash for removal of the sludge from the wash.

Compl. specn. 15 pages.

Drg. Nil

CLASS : 32F<sub>2</sub>(b)

160016

Int. Cl. : C 07 d 27/00.

## PROCESS FOR THE PREPARATION OF 1-ALKYL-OR-1, 4-DIALKYL-1H-PYRROLE-2-ACETIC ACID ESTERS.

Applicant : RICHTER GEDEON VEGYESZETI GYAR R.T., OF 19-21, GROMROL UT, BUDAPEST X., HUNGARY, HUNGARIAN FIRM.

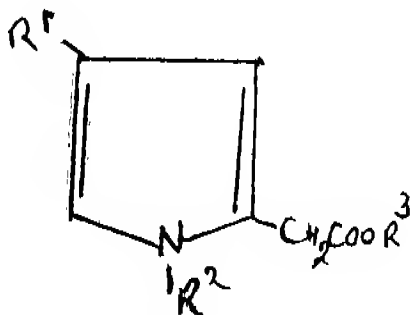
Inventors : EVA AGAI NEE CSONGOR, KALMAN HARSANYI, GYORGY DOMANY PIROSKA MAJOR NEE FORSTNER, KAROLY MOLNAR, MARTA SZOLLOSZY & ANNA KRUZICS NEF LAUKO.

Application for Patent No. 422/Del/83 filed on 21st June, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 5 Claims

Process for the preparation of 1-alkyl-or-1, 4-dialkyl-1H-pyrrole-2-acetic acid alkyl esters of the general formula (I)



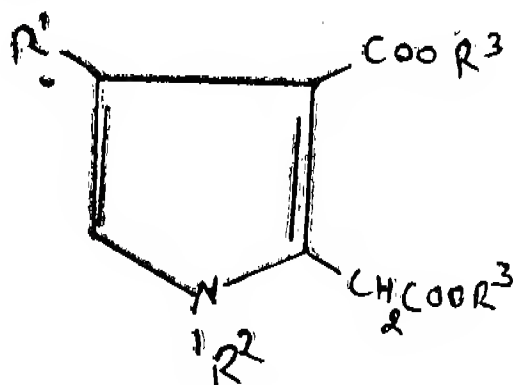
Formula (I)

wherein

R<sup>1</sup> is hydrogen or an alkyl group having from 1 to 4 carbon atoms,

R<sup>2</sup> and R<sup>3</sup> each independently represent an alkyl group having from 1 to 4 carbon atoms,

which comprises heating a 1-alkyl-or-1, 4-dialkyl-3-alkoxy-carbonyl-1H-pyrrole-2-acetic acid ester of the general formula (II)



Formula (II)

in which R<sup>1</sup> and R<sup>2</sup> are as desired in the end product and R<sup>3</sup> has the same meaning as defined above, in a concentrated mineral acid or an aliphatic or aromatic sulfonic acid.

Compl. specn. 13 pages.

Drg. 2 sheets

CLASS : 32 L

160017

Int. Cl. : C 01 g 37/00.

A METHOD FOR RECOVERING HIGH PURITY Cr<sub>2</sub>O<sub>3</sub> FROM CHROMIUM ORE.

Applicant : UNION CARBIDE CORPORATION, MANUFACTURERS, A CORPORATION ORGANISED UNDER THE LAWS OF STATE OF NEW YORK, UNITED STATES OF AMERICA, LOCATED AT 270 PARK AVENUE, NEW YORK, STATE OF NEW YORK 10017, UNITED STATES OF AMERICA.

Inventors : TADASHI JACK KAGETSU, WILLIAM BRANTNER DE ATLEY & JOSEPH SLOIMON FOX.

Application for Patent No. 423/Del/1983 filed on 22nd June, 1983.

Divisional to Patent application No. 841/Del/79 filed on 22nd November, 1979.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 9 Claims

A method for recovering high purity Cr<sub>2</sub>O<sub>3</sub> from chromium ore which comprises :

- (i) roasting in a gaseous oxidizing environment a mixture of chromium ore with Na<sub>2</sub>CO<sub>3</sub> and C<sub>2</sub>O at a temperature in the range of 600°C to 1100°C for from 0.5 to 6 hours, the amount of Na<sub>2</sub>CO<sub>3</sub> being that which provides from 1.4 to 4.2 pounds of Na<sub>2</sub>CO<sub>3</sub> per pound of Cr<sub>2</sub>O<sub>3</sub> in the ore and the amount of CaO being that which provides from 0.6 to 1 pound of CaO per pound of Cr<sub>2</sub>O<sub>3</sub> in the ore;
- (ii) water leaching the roasted material obtained in step (i) at a temperature of from 5°C to the boiling point of water for from 5 minutes to 5 hours;
- (iii) adding an acid of the kind such as herein described to the leach liquor obtained in step (ii) to provide a pH of from 3 to 9.5 to cause precipitation of aluminium impurities and separating said impurities from the leach liquor;
- (iv) contacting the liquor obtained in step (iii) with an aqueous slurry of NaOH and elemental sulfur at about the boiling point and additional elemental sulfur with the NaOH and elemental sulfur slurry and the additional elemental sulfur being in a range such as herein described which is sufficient to effect the reduction of chromium values in the contacted liquor from a valence of 6 to 3 forming a chrome hydrate precipitate with said contacted liquor being maintained at about the boiling point during the reduction;
- (v) recovering the chrome hydrate precipitate of step (iv) by filtration;
- (vi) washing the recovered chrome hydrate of step (v) with water to remove entrained soluble materials;
- (vii) repulping the chrome hydrate of step (vi) in an H<sub>2</sub>SO<sub>4</sub> solution at ambient temperature having a pH of 2 to 5 followed by filtration to recover the chrome hydrate and water washing of the recovered chrome hydrate so that sodium and cation impurities are removed;
- (viii) drying the chrome hydrate of step (vii) to provide a solid chromium-bearing material;
- (ix) calcining the solid chromium-bearing material of step (viii) at a temperature of 750°C to 2200°C to obtain Cr<sub>2</sub>O<sub>3</sub> with said calcining being continued for a time sufficient to lower sulfur impurities to a desired level.

(Complete specification 19 pages) (Drawings two sheets)

CLASS : 156-E.

160018

Int. Cl. : F 04 b 1/00.

**A DRIVE MECHANISM FOR AN OIL-WELL SUCKER-ROD PUMP.**

Applicant & Inventor : MUSA AMIR OGLY GUSEINOV, OF BAKU, 8, MIKROTAION, ULITSA AKHUNDOVA, 4, KV. 77, USSR.

Application No. 623/Cal/84 filed September 10, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

**2 Claims**

A drive mechanism for an oil-well sucker-rod pump comprising a motor having an output shaft thereof kinematically linked with rods through a transmission mechanism converting a rotary motion into a translational motion, characterised in that the transmission mechanism has the form of a crank provided with counter-weights, and a gear train fashioned as a stationary gear wheel with internal teeth and two movable gear wheels of large and small diameters meshing with the stationary gear wheel and mounted for rotation on shafts secured at the ends of the crank, the pitch circle diameter of the stationary gear wheel being equal to a drive stroke, whereas the pitch circle diameter of the larger movable gear wheel amounts to one-half the drive stroke, the latter gear wheel having a cantilever-arranged pin pivotably connected to the rods, the center of the pin being disposed on the pitch circle of this gear wheel; a shaft being further arranged coaxially with the stationary gear wheel, one end of which shaft being connected by way of a transmission to the output shaft of the motor, the other end thereof being journaled for rotation in the crank, the shaft of the smaller movable gear wheel being kinematically linked with the shaft journaled in the crank.

Compl. Specn. 8 pages.

Drg. 1 sheet.

CLASS : 32-F<sub>2</sub> b; 55-E<sub>1</sub>; 60-X<sub>2</sub> a.

160019

Int. Cl. : C 07 d 99/24.

**A PROCESS FOR PRODUCING CEPHALOSPORINS.**

Applicant : TOYAMA CHEMICAL CO. LTD., OF 2-5, 3-CHOME, NISHISHINJUKU, SHINJUKU-KU, TOKYO, JAPAN.

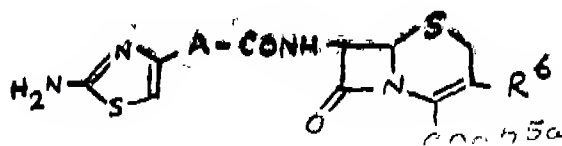
Inventors : 1. TAKASHI NAGAI, 2. HIROKAZU OCHIAI, 3. TAKIHIRO INABA, 4. ISAO MYOKAN, 5. HIROSHI SADAHI, 6. ISAMU SAKAWA.

Application No. 628/Cal/84 filed September 11, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

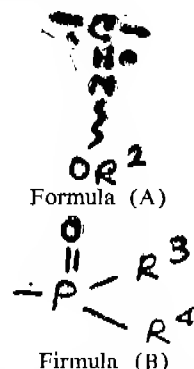
**6 Claims**

A process for producing a cephalosporin represented by the general formula (I) of the accompanying drawing or a salt thereof :

**Formula (I)**

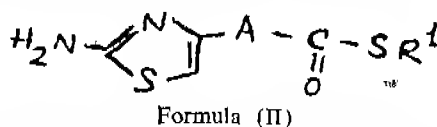
wherein R<sup>5a</sup> is a hydrogen atom or a carboxyl-protecting group; R<sup>6</sup> is a hydrogen atom, a halogen atom, a lower alkyl group or a group represented by the formula -CH<sub>2</sub>R<sup>7</sup> in which R<sup>7</sup> is a hydroxyl group or a substituted or unsubstituted acyloxy, carbamoyloxy, acylamino, aryl, heterocyclicthio,

aromatic heterocyclic or heterocyclic group, said aromatic heterocyclic group being attached to the exomethylene group at the 3-position of the cephem ring through a carbon-carbon bond, and said heterocyclic group being attached to the exomethylene group at the 3-position of the cephem ring through a carbon-nitrogen bond; and -A- is a methylene group or a group of the Formula (A)

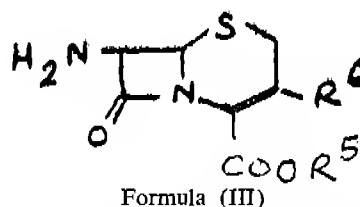
**Formula (A)****Formula (B)**

[in which R<sup>2</sup> is a hydrogen atom; a substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aralkyl, aryl or heterocyclic group; a hydroxyl-protecting group; or a group represented by the Formula (B)]

(in which R<sup>8</sup> and R<sup>1</sup>, which may be the same or different, are hydroxyl, alkyl aralkyl, aryl, alkoxy, aralkyloxy or aryloxy groups), and the bond represents a syn or anti isomer or a mixture thereof], which comprises reacting 1 mole or more of a compound represented by the Formula (II)

**Formula (II)**

wherein -A- has the same meaning as defined above, and R<sup>1</sup> is a substituted or unsubstituted alkyl, aralkyl or aryl group per mole of the compound represented by the Formula (III), with a compound represented by the Formula (III)

**Formula (III)**

wherein R<sup>5</sup> is a carboxyl-protecting group; and R<sup>6</sup> has the same meaning as defined above, in the presence of boron trifluoride or a complex compound of boron trifluoride as herein defined and then, if desired, removing the carboxyl-protecting group or converting the product to a salt.

Compl. Specn. 53 pages.

Drg. 16 sheets.

CLASS : 179-G.

160020

Int. Cl. : B 65 d 51/06.

**A CLOSURE CUM DISPENSER FOR BOTTLES, CONTAINERS AND THE LIKE.**

Applicant : SPBP TEA INDUSTRIES PVT. LTD., OF 20, BRITISH INDIAN STREET, 2ND FLOOR, CALCUTTA-700 069, WEST BENGAL, INDIA.

Inventor : MAYANK KUMAR.

Application No. 632/Cal/84 filed September 12, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 7 Claims

A closure cum dispenser for bottles, containers and the like comprising a closure body divided into an upper portion and a lower portion by a partition wall, an opening provided in the said partition wall for discharge of the contents of the bottle, container and the like to which the closure is fitted, the lower portion of the closure body provided with internal threads for fixing the said closure cum dispenser to the mouth of a bottle or a container, a depending rib provided below the said partition wall to act as a liner for the closure cum dispenser a pair of walls provided above the said partition wall having grooves cut therein, a cap adapted to be pivotally fitted to the said closure body above the said partition wall, a pair of cradle provided below the top cover of the said cap reinforced by walls such that when the said cap is pivotally fitted to the closure body the said pair of cradle rests on the grooves provided with the walls extending above the partition wall so as to have swinging action, a depending lug provided below the top cover of the said cap co-operating with the said opening in the partition wall and a passage provided with the said cap to allow a discharge of the contents of the bottle or the container, the arrangement being such that when a discharge of the contents of the bottle or the container is desired the said cap is pressed open in which condition the said depending lug moves away from the said opening of the partition wall to be in a flow communication with the said passage while when the said cap is snapped shut the said depending lug rests on the said opening of the partition wall not allowing any discharge of the contents from the bottle or the container.

Comp. Specn. 11 pages.

Drg. 2 sheets.

CLASS : 179-F.

160021

Int. Cl. : B 67 b 3/14.

A CLOSURE FOR A CONTAINER, BOTTLE OR THE LIKE.

Applicant : SPBP TEA INDUSTRIES PVT. LTD., OF 20, BRITISH INDIAN STREET, 2ND FLOOR, CALCUTTA-700 069, STATE OF WEST BENGAL, INDIA.

Inventor : MAYANK KUMAR.

Application No. 633/Cal/84 filed September 12, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 5 Claims

A closure for a container, bottle or the like made of a plastic material having a round or other geometric configuration comprises a flap hingedly connected to the closure being defined by a rim, said flap being divided into two portions by a weakening provided on the undersurface of the said flap such that one half of the said flap can be opened along the weakening upon applying pressure on the other half of the flap, the other half of the flap also capable of being opened by pulling the first half of the flap a plate located below the first half of the flap with openings provided for allowing a discharge of the contents of the container or the bottle and the like when the flap is opened, lugs being provided on the undersurface of the first half of the said flap for seating in a sealing relationship in the said opening of the closure when the flap is closed, a space provided below the second half of the said flap defined by a depending member to allow an opening of the first half of the flap along the weakening when this second half of the flap is pressed from the top, the said depending member being provided below the level of the said openings of the closure.

Comp. Specn. 9 pages.

Drg. 1 sheet.

CLASS : 69-A &amp; I.

160022

Int. Cl. : H 01 h 87/00.

ARC RESISTANT VAPOR CONDENSING SHIELD FOR VACUUM TYPE CIRCUIT INTERRUPTER.

Applicant : WESTINGHOUSE ELECTRIC CORPORATION, OF WESTINGHOUSE BUILDING, GATEWAY CENTRE, PITTSBURGH, PENNSYLVANIA 15222, UNITED STATES OF AMERICA.  
3-117GI/87

Inventor : PAUL ORLANDO WAYLAND.

Application No. 635/Cal/84 filed September 12, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 7 Claims

A vacuum-type circuit interrupter which comprises means defining an evacuated envelope; a pair of two-component metallic electrical contacts disposed within the evacuated envelope, said contacts being separable to establish arcing; a vapor condensing shield disposed within said evacuated envelope to prevent the deposition of metal particles, emitting from the arcing region on the envelope and to prevent heat flux from damaging the envelope; and at least that portion of the vapor condensing shield adjacent to said separable contacts and within the arcing area being comprised of the same two metallic components as the separable electrical contacts.

Comp. Specn. 8 pages.

Drg. 1 sheet.

CLASS : 65-B<sub>2</sub>.

160023

Int. Cl. : H 01 f 33/00.

PHASE-SHIFT TRANSFORMER CIRCUITS.

Applicant : WESTINGHOUSE ELECTRIC CORPORATION, OF WESTINGHOUSE BUILDING, GATEWAY CENTRE, PITTSBURGH, PENNSYLVANIA 16222, UNITED STATES OF AMERICA.

Inventors : 1. THEODORE RICHARD SPECHT, 2. EDWARD JOHN CHAM.

Application No. 636/Cal/84 filed September 12, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 5 Claims

A phase-shift transformer circuit adapted for connection to a three-phase power system to provide a phase-shifted ac signal at a predetermined advance or retard phase shift angle, said phase-shift transformer circuit comprising a magnetic core, electrical winding means disposed in inductive relation with said magnetic core, said electrical winding means including a primary winding, having first, second, and third input terminals connected to first, second, and third phase coils respectively, and a secondary winding having a plurality of output terminals, each of said first, said second, and said third phase coils of said primary winding including first and second portions, each of said first and said second portions of said first, said second, and said third phase coils having a predetermined number of turns and wound on said magnetic core to obtain the predetermined phase shift angle, said first input terminal being adapted for connection to a first selected phase of the power system, switchable means having first and second configurations, wherein in said first configuration said second input terminal is adapted for connection to a second selected phase of the power system and said third input terminal is adapted for connection to a third selected phase of the power system to provide an advance phase-shifted ac signal at said plurality of output terminals, and in said second configuration said second input terminal is adapted for connection to the third selected phase of the power system and said third input terminal is adapted for connection to the second selected phase of the power system to provide a retard phase-shifted ac signal at said plurality of output terminals.

Comp. Specn. 13 pages.

Drg. 3 sheets.

CLASS : 32-F<sub>2</sub> b.

160024

Int. Cl. : C 07 d 91/32.

A PROCESS FOR ISOLATING LEVAMISOLE FROM TETRAMISOLE.

Applicant : JANSSEN PHARMACEUTICA N.V., OF TURNHOUTSEBAAN 30 B-2340-BEERSE, BELGIUM.

Inventors : 1. GUIDO JOZEF LOUISA VAN DEER VEKEN, 2. ERIC JOSEPH GUNS, 3. ALBERT LOUIS ANNA WILLEMSSENS.

Application No. 655/Cal/84 filed September 17, 1984.

Convention date 9th November, 1983 (83.29.869) U. K.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

### 7 Claims

A process for isolating levamisole or a therapeutically acceptable acid addition salt thereof from tetramisole or an acid addition salt thereof by the consecutive steps of :

- (i) mixing tetramisole or an acid addition salt thereof with an excess amount of L-N-[(4-methoxy-phenyl) sulfonyl] glutamic acid or an alkali metal or earth alkaline metal salt thereof in a suitable solvent;
- (ii) collecting the precipitated levamisole L-N-[(4-methoxyphenyl) sulfonyl] glutamic acid (salt); and
- (iii) liberating levamisole from the said precipitated salt; and optionally converting levamisole into a suitable therapeutically acceptable acid addition salt.

Compl. Specn. 14 pages

Drg. 1 sheet.

CLASS. 77-C.

160025.

Int. Cl. C 11 c 3/00.

A NEW PROCESS TECHNOLOGY FOR THE PRODUCTION OF VANASPATHI LIKE NUTRITIOUS MODIFIED FAT OF DESIRED PUFA (POLY UNSATURATED FATTY ACID) LEVEL AND VARIED GLYCERIDE COMPOSITION, DIRECTLY FROM COMMERCIALY REFINED OILS AND FATS BY INTERESTERIFICATION UNDER THE CATALYTIC INFLUENCE OF SODIUM METHYLATE POWDER.

Applicants & Inventors : DR. DIPAK KUMAR BHATTACHARYYA AND MD. ALI NEWAZ, 92 ACHARYA PRAFULLA CHANDRA ROAD, CALCUTTA 700 009, (W.B.) INDIA.

Application No. 664/Cal/84 filed 21st September, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

### 10 Claims.

A process of interesterification of glyceride oils starting directly from commercially refined oils and fats to produce modified fat having randomly rearranged glyceride composition, rich in PUFA (poly unsaturated Fatty Acid) content, free from trans isomer, having desired plasticity and presence of EFA (Essential Fatty Acid) as required for better nutrition which comprises pretreating the oil with dil solutions of NaOH till the FFA (Free Fatty Acid) content of the oil becomes neutralized, drying the oil by heating under vacuum and adding 0.05—0.1% NaOCH<sub>3</sub> on the dried oil at required temperature under vacuum with continuous stirring till the completion of rearrangement reaction and subsequently destroying the catalyst by means of dil phosphoric acid and washing several times with hot water till it is free from catalyst or soap and the randomized mass is heated under vacuum till it is dry.

Compl. Specn. 9 pages.

Drg. Nil.

CLASS : 62-B.

160026

Int. Cl. B 05b 13/02; B 05c 3/132.

AN APPARATUS FOR BLEACHING AND SCOURING TEXTILE FABRICS.

Applicants : BAIWANTRAI KESHAVBHAI PATEL AND NANUBHAI KESHAVBHAI PATEL OF 17, CAMAC STREET, MONALISA, CALCUTTA-700 017, WEST BENGAL, INDIA.

Inventor : 1. NANUBHAI KESHAVBHAI PATEL.

Application No. 666/Cal/84 filed September 21, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

### 3 Claims.

An apparatus for bleaching and scouring textile fabrics comprising a frame structure on which is mounted a tank adapted to contain a solution, a first and a second roller mounted on top of said frame structure above the said tank by means of bearings, either of said first or second roller loaded with a roll of fabric for bleaching and scouring wherein the fabric from the said roller on which it is loaded is transferred to the other roller after passing through the solution in the tank, guide rollers provided within said tank for guiding the passage of fabric through the solution in the tank, drive means provided for rotating alternatively at one time the said first or second roller and anti-creasing rollers provided within the said tank, characterized in that fabric passing through the solution in the tank has a convolute passage such that the fabric during its passage in the tank is taken out of the level of the solution in the tank for providing a hydromechanical effect of the solution on the fabric, said hydromechanical effect being carried out by recirculating the solution contained in the tank and spraying the same on the fabric by means of a jet sprayer, rollers being provided above the level of the solution in the tank for the fabric to travel outside the level of the solution contained in the tank.

Compl. Specn. 11 pages.

Drg. 1 sheet.

CLASS : 32-F.

160027

Int. Cl. : C 07 c 49/16.

IMPROVEMENTS IN OR RELATING TO PROCESS FOR THE PREPARATION OF 5-CHLORO PENTAN-2-ONE.

Applicant : RECKITT & COLMAN OF INDIA LIMITED OF 4, CHOWRINGHEE ROAD, CALCUTTA-700 071, STATE OF WEST BENGAL, INDIA.

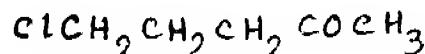
Inventors : 1. DR. SURENDRA PRASAD BHATTNAGAR, 2. DR. AJAI PRAKASH, 3. DR. RAMANUJAM SRINIVASA PRASAD.

Application No. 675/Cal/84 filed September 25, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

### 2 Claims

Improved process for the preparation of 5-chloropentan-2-one of formula I of the accompanying drawings which comprises :



(I)

- (i) reacting butyrolactone with ethyl acetate and sodium at a temperature of 50—180°C preferably 80—120°C to form anion of acetobutyrolactone in situ;

- (ii) subjecting the anion of acetobutyrolactone formed in situ to a step of distillation by treatment with concentrated hydrochloric acid and water to obtain 5-chloro-pentan-2-one.

Compl. Specn. 8 pages.

Drg. 1 sheet.

CLASS : 106.

160028

Int. Cl. : F 01 n-1/14, 7/12.

**DEVICE FOR REDUCING NOISE IN THE COURSE OF DIRECT STEAM INJECTION INTO LIQUORS FOR HEATING THEREOF.**

Applicants : AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, P. O. POLYTECHNIC, AHMEDABAD-380 015.

Inventors : 1. RAKESH MOHAN MITTAL AND 2. DATTALAL CHHAGANLAL WANI.

Application No. 5/Bom/1985 filed January 5, 1985.

Complete after provisional left January 29, 1986.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Bombay Branch.

**5 Claims**

A device for reducing noise in the course of direct steam injection into liquors for heating thereof, comprising a housing, one end whereof is adapted to accommodate in leak-proof manner a steam injection pipe/lance or the end of a steam injection line, while the other end whereof is adapted to accommodate in a leak-proof manner a steam receiver pipe/lance, the steam injection pipe/lance or the end of the steam injection line and the steam receiver pipe/lance extending inside the housing such as to define an annular passage therebetween, the outward end of the steam receiver pipe/lance defining the steam injecting end adapted to be dipped into the liquor to be heated, and the said housing being further provided with air inlet for regulated entry of air therethrough and through the said annular passage, for cushioning of steam with air during steam injection into the liquor.

Compl. Specn. 12 pages.

Drg. Nil.

Provisional Specn. 7 pages.

Drg. 1 sheet.

CLASS : 125B<sub>1</sub> + B<sub>1</sub> Gr. XLI (8).

160029

156 D + G Gr. XLVII (3).

Int. Cl. : B 67 d-5/18, 5/46, G 01 f-1/02, 3/00, 3/12.

**AN IMPROVED POSITIVE DISPLACEMENT METERING DEVICE FOR LIQUID DISPENSING PUMPS.**

Applicant : MRS. ANITA CHOWDHURY, AN INDIAN CITIZEN, 9, GARDEN VIEW, (MEGHA BHUVAN) PARSEE COLONY, DADAR, BOMBAY-400 014. MAHARASHTRA, INDIA.

Inventor : DEBI PRASAD CHOWDHURY.

Application No. 38/Bom/1985 filed February 14, 1985.

Complete after provisional left on March 6, 1986.

Appropriate office for opposition proceedings (Rule 4, Patent Rules 1972) Patent Office Bombay Branch.

**10 Claims**

An improved positive displacement metering device for liquid dispensing pumps comprising a cast metal body having a top and base cover fitted with sealing gaskets to render it dust and leakproof, said top cover having an inlet port on its one side and said body and said base cover having a centrally located outlet port for discharge of measured quantity of liquid therethrough, said body having a cluster of five equi-spaced cylinders, each lined with precision liner carrying a plunger assembly reciprocating vertically therewithin each of said plunger assembly being linked at the end of each arm of a five armed wobble plate having five plunger guide pins located within respective seats provided on the top of a spider support having

a gear nut operated through a gear rod provided on one side of said body and a calibrating knob fixed at the end of said gear rod being projected out from the said base cover and protected by a cap nut fitted with a lead seal to render it dust and leakproof and tamper proof; said spider support encloses a valve seat having five ports and a pentagonal valve having a seat in its top centre for ball end of a ball pivot with an extension rod passed through said spider support having a hemispherical seat for said ball pivot and said extension rod passed through wobble plate is seated within a drive socket driven by a driving dog of drive shaft driven through a gear train by a prime mover, wherein orientation of said valve with respect to the ports of said valve seat is controlled by said ball pivot which nutates on said hemispherical seat in said spider support, the arrangement being such that when said wobble plate is nutated by a prime mover through said drive shaft, at a time four of said plunger are at the top of respective cylinders and only one plunger descends and allows to fill the cylinder with measured quantity of liquid to be dispensed and during the upward stroke of said descended plunger liquid filled in said cylinder is discharged through valve opening and said outlet port in body and base cover and in like manner other plungers in respective cylinders are operated and measured quantity of liquid filled in respective cylinders is dispensed during each upward stroke of respective plunger and in that fine adjustment for measured liquid to be filled in respective cylinders is increased/decreased through the said gear nut by adjusting said wobble plate on spider support through said knob fixed at the end of the gear adapted to be dipped into the liquor to be heated, and the rod whereby the stroke of respective plunger operating in respective cylinders is simultaneously adjusted.

Provisional Specn. 7 pages.

Drg. 1 sheet.

Compl. Specn. 11 pages.

Drg. 1 sheet.

CLASS : 170 D

160030

Int. Cl. : C 11 d 1/86, 1/28.

**A PROCESS FOR THE PREPARATION OF DETERGENT COMPOSITIONS.**

Applicants : HINDUSTHAN LEVER LTD., OF HINDUSTHAN LEVER HOUSE, 165/166, BACKBAY RECLAMATION, BOMBAY-400 020, MAHARASHTRA, INDIA.

Inventors : (1) JEFFREY DALE HAMPSON, (2) REGINALD BILLINGTON &amp; (3) INARUSSEL COX.

Application No. 60/Bom/1985 filed March 4, 1985.

(Divisional to Application No. 191/BOM/1982 dated 24.7.1982).

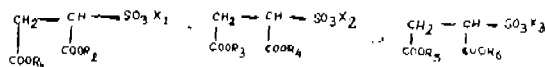
Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Bombay Branch.

**4 Claims**

A process for the preparation of detergent composition, more especially a liquid detergent composition, comprising (a) one or more compounds of the formula I shown in the accompanying drawing wherein each of R<sub>1</sub> and R<sub>2</sub> represents an alkyl group having from 7 to 9 carbon atoms, and X<sub>1</sub> represents a solubilising cation as herein defined and (b) one or more compounds of the formula II shown in the accompanying drawings wherein one of R<sub>3</sub> and R<sub>4</sub> represents an alkyl group having from 7 to 9 carbon atoms and the other represents an alkyl group having from 3 to 6 carbon atoms, and X<sub>2</sub> represents a solubilising cation as herein defined and (c) one or more compounds of the formula III shown in the accompanying drawings wherein each of R<sub>5</sub> and R<sub>6</sub> represents an alkyl group having from 3 to 6 carbon atoms, and X<sub>3</sub> represents a solubilising cation as herein defined said process comprising subjecting to esterification a starting material selected from maleic acid, its anhydride, its trans isomer fumaric acid or the sulphosuccinic acid with a mixture of alcohol of formula ROH where R is C<sub>1</sub> to C<sub>6</sub>

and a mixture of alkanol of formula  $R'OH$  where  $R'$  is  $C_n$  to  $C_8$  in the presence of a known acid catalyst, followed by subjecting the reaction product namely dialkyl maleate or fumarate thus obtained to bisulphite addition in known manner to give the desired compositions in-situ having one or more compound (a) and one or more compounds (b) and one or more compound (c).

Complete Specification 30 pages. Drawing 1 Sheet.



(I)

(II)

(III)

CLASS : 170 D

160031

Int. Cl. C 11 d-1/28, 1/86.

#### A SYNERGISTIC DETERGENT COMPOSITION

Applicants : HINDUSTAN LEVER LIMITED, HINDUSTAN LEVER HOUSE, 165/166, BACKBAY RECLAMATION, BOMBAY-400 020, MAHARASHTRA, INDIA.  
Inventors : IAN RUSSELL COX AND KEITH JONES.

Application No. 61/BOM/1985 FILED MARCH 4, 1985.

Divisional to Application No. 195/BOM/1982.

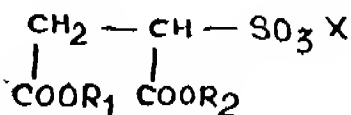
Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Bombay Branch.

#### 4 Claims

A synergistic detergent composition comprising (i) at least one novel detergent active unsymmetrical dialkyl sulphosuccinate compound of the formula I of the accompanying drawings wherein one of  $R_1$  and  $R_2$  represents a  $C_6$  alkyl group and the other represents a  $C_8$  alkyl group, and X represents a monovalent cation or  $1/m$  or an  $m$ -valent cation in conjunction or admixture with (ii) one or more other known detergent active materials and/or (iii) one or more known detergent adjuncts.

Compl. specn. 21 pages,

Drg. 1 sheet



(1)

CLASS : 48 B, 151 C.

160032

Int. Cl. : F 16 L 11/00.

#### ENERGY TRANSMISSION CHAIN.

Applicants : KABELSCHLEPP GESELLSCHAFT MIT BESCHRANKTER HAFTUNG, A WEST GERMAN COMPANY, OF MARIENBORNER, STR. 75, 5900 SIEGEN 1, WEST GERMANY.

Inventors : FRIEDRICH HASCHEK; WERNER MORITZ.

Application No. : 79/BOM/1985, FILED ON 28TH MARCH, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, Bombay-13.

#### 11 Claims

An energy transmission chain for the supply of consumable energy of all types through lines from a fixed terminal to a mobile consumer terminal, whereby the lines are arranged in continuous internal spaces of a supporting chain (1,2) which consists of chain side bars (A,B) connected with straps (4), and whereby for restricting the mutual angle

of traverse, on every chain side bar (A) oblong holes (7) extending around a common axis of the joint are provided, into which nipples (10) of the neighbouring chain side bar (B) are engaged, characterised by the fact, that the chain side bars (A,B) are made of one piece, further that at one end of one side the oblong holes (7) are let into a disc-shaped plate (6) and at the other end of the opposite side the nipples (10) are tip-stretched at the bottom of a jacket (9) and that the diameter of the plate is smaller than the diameter of the jacket (9), so that the plate (6) of one chain side bar (A) can be inserted into the jacket (9) of the other chain side bar (B).

Comp. specn. 8 pages,

Drg. 3 sheets.

CLASS : 38, 151 C.

160033

Int. Cl. : B 66 D 1/36.

"A GUIDE CHAIN FOR GUIDING FEED-LINES FROM A STATIONARY CONFECTION TO A MOVABLE CONSUMING DEVICE."

Applicant : KABELSCHLEPP GmbH, A WEST GERMANY COMPANY OF MARIENBORNER, STR. 75, 5900, SIEGEN 1, WEST GERMANY.

Inventor : WARNER MORITZ.

Application No. 89/BOM/85 filed on April 6, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Bombay Branch.

#### 14 Claims

A guide chain for guiding feed-lines from a stationary connection to a movable consuming device; to connect the links of respective link chains of said guide chain, separable crosspieces are provided which form through passages for said feed-lines; each of said cross-pieces comprises at least two crossbars having a substantially flat cross-section with wide sides and rounded off narrow sides; the improvement wherein : each of said cross-pieces further comprises at least one, or at least one type of, element disposed between said cross-bars to interconnect the latter; said connecting elements are usable in any desired combination of the types thereof to form said through passages; and that wide side of each of said cross-bars which is directed inwardly, i.e. towards another one of said cross-bars, is provided with a mounting channel having a C-shaped cross-section; said connecting elements are respectively connected with said crossbars either by being placed on said narrow sides thereof, or by being placed in said mounting channels thereof.

Complete Specification 11 pages.

Drawings 3 sheets.

CLASS : 179 C [XL(6)], 128 G [XIX(2)].

160034

Int. Cl. : B 65 d—37/00, 53/00.

"A MOLDED PLASTIC CONTAINER HAVING A NON-CORING, NON-LEAKING PIERCING SITE."

Applicants : HEALTH CARE CONCEPTS, INC., ALLAMUCHY, NEW JERSEY 07820, U.S.A.

Inventor : EUGENE JOHN MEIERHOEFFER.

Application No. 108/BOM/1985 filed April 25, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Bombay Branch.

#### 5 Claims

A blow molded sealed container of integral construction having a piercing site for penetration by a steel or plastic needle comprising :

a. a main body for containing or receiving a liquid;

b. a hollow neck portion extending from and communicating with the interior of said main body; and

c. hollow, fully enclosed main dome means formed on the exterior end of said neck portion communicating with the interior of said neck having a generally uniformly curved outwardly bulging shell of uniform thickness substantially circular in diameter greater than, and concentric with the central axis of, said neck, the outer surface of said shell having formed therein a needle penetration site consisting of a secondary dome axially offset from the centre line of said neck and whose diameter is less than the diameter of said curved shell.

Complete Specification 13 pages.

Drawing 1 Sheet.

CLASS : 205 B.

160035

Int. Cl. : B 60 C—21/08.

"A SEALANT FOR AUTOMATICALLY SEALING AND PREVENTING FLATTING OF PNEUMATIC TYRE FOR VEHICLES AND A PNEUMATIC TYRE PROVIDED WITH THE SAID SEALANT."

Applicants & Inventors : (1) MOHANLAL PURSHOT-TAMDAS TANK, 482, OLD AERODROME ROAD, BHAV-NAGAR, GUJARAT STATE, INDIA AND (2) BABULAL MANSUKHLAL PAREKH, JUTHA DOSHI'S STREET, MANDVI CHOWK, RAJKOT, GUJARAT STATE, INDIA.

Application No. 110/BOM/1985 filed on 26th April, 1985.

Complete after provisional left on 21st July, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, Bombay-13.

#### 9 Claims

A sealant for automatically sealing and preventing the flattening of pneumatic tyre for vehicles, the said sealant being prepared by non-abrasive jel-forming clay mixed with water under constant agitating or churning to obtain a homogeneous viscous jelly or slurry.

Provisional specification 5 pages.

Drawing Nil.

Complete specification 7 pages.

Drawing Nil

CLASS : 160 A.

160036

Int. Cl. : B 62 d—25/00.

"A MULTI-PURPOSE TRAILER".

Applicant : MOHINDRA OWEN LIMITED, AN INDIAN COMPANY HAVING ITS REGISTERED OFFICE AT 155, BOMBAY PUNE ROAD, PIMPRI, PUNE-411 018, MAHARASHTRA, INDIA.

Inventor : RAULF AUGUSTO NORONHA.

Application No. 119/BOM/1985 filed on May 2, 1985.

Complete after Provisional left on May 14, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Bombay Branch.

#### 9 Claims

A multi-purpose trailer comprising : a chassis assembly mounted on an axle assembly having a pair of wheels fitted with pneumatic tyres and manually operable mechanical hand brake assembly; the said chassis having at its front end a transversely mounted attendant seat having compartments for tool box and a locker, a folding type screw jack provided at the front end of said chassis and a foldable ramp at the rear end with non-slip tread and latch means for locking it in fixed upright position during transportation and use as a ramp for loading the trailer with goods or walking animals into the trailer, a rectangular central platform and a pair of longitudinally extending stepped-up side platforms each forming seat-cum-shelf and two rigid side panels, each of said side panel consisting of longitudinally extending shutters with locking means hingeably mounted on top of said rigid side panels on chassis and which shutters when locked in upright position function as a back-rest and a guard for said stepped-up seat-cum-shelf on chassis, said tool box-cum-seat

for two having a transversely extending compartment forming a shelf and a pair of pigeon hole compartment formed therebelow and having a lockable door panel therefor, the arrangement being such that said ramp in open position is used for walking an animal or loading goods/agricultural produce on to the trailer platform for being transported to market place and wherein said ramp is closed or folded position functions as a guard to prevent animal or goods from getting displaced or shifted during transportation.

Provisional Specification 5 pages.

Drawing 4 Sheets.

Complete Specification 7 pages.

Drawing Nil.

CLASS : 107 F [XLVI (2)].

160037

INT. CL. : F 02p—15/12, 9/00, 5/08.

HIGH TENSION CURRENT BOOSTER FOR IGNITION SYSTEM OF PETROL ENGINES AND METHOD OF MANUFACTURING SUCH BOOSTER.

APPLICANT & INVENTOR : SHARAD NARAYAN PATHAK, 505, SHANIWAR PETH, PUNE-411 030.

APPLICATION NO. : 123/BOM/1985. Filed : May 3, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Bombay Branch.

#### 7 Claims

1. High tension current booster for ignition system of the petrol engines comprising an insulated split casing made or moulded from aluminium oxide and glass fibre or nylon or high impact polypropylene or the like synthetic resins or from glass fiber reinforced with epoxy resins to withstand HT spark of 12,000 Volts and temperature of 900°C., the said casing having a container part and a closure part, each part having a socket accommodating a terminal screw and HT cable fitted thereinto; the said container part being packed with a high voltage capacitor pack comprising even number of capacitor plates/discs or washers interleaved with odd number of dielectric mica or ceramic plates/discs or washers and said pack having a central passage formed by aligned holes in respective washers forming said capacitor pack for travelling therethrough HT spark from HT coil to the distributor of ignition system of petrol engine and said pack being further compressed by a coil spring sandwiched between topmost of said capacitor disc washer in said pack and a capacitor plate (metal disc washer) accommodated in the skirt of the closure part making a perfect electrical contact with said terminal screw in closure part and said closure part being adhesively stuck to container part by phenolic or the like resin adhesive and held under clamp pressure to get set so as to form a hermetically sealed airtight and electrically leak-proof and insulated casing for said capacitor pack and the booster is capable of maintaining spark of 12,000 Volts from ignition coil to the distributor of ignition system.

Complete Specification : 11 pages.

Drawings : 1 sheet.

CLASS : 32 B

160038

Int. Class : C07c-3/00; 3/10

"A PROCESS FOR THE COVERSION OF ALKANOLS TO HYDROCARBONS".

Applicant : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH Rafi Marg, New Delhi-110001, India, an Indian registered body incorporated under the Registration of Societies Act (Act XXI of 1960).

Inventors : PAUL RATNASAMY, IKKANDATH BALAKRISHNAN AND BOLLAPRAGADA SESHAGIRI RAO.

[Application for Patent No. 437/DEL/1983 filed on 30th June 1983. Complete specification left on 27th October 1983.

Appropriate Office for opposition proceedings (Rule 4, Patent Rules 1972) Patent Office Branch, New Delhi-5.

### 5 Claims

A process for the conversion of alkanols with upto 4 carbon atoms and mixtures thereof and water into hydrocarbons rich in light olefins comprising contacting the alkanol or a mixture of the alkanol with water in vapour phase with a catalyst composite material being a ferrosilicate represented in terms of mole ratio of oxides of formula.

wherein M is a monovalent cation like sodium, ammonium hydrogen or mixture thereof and Z is  $O = 2.0$ .

Provisional Specn. 12 pages.

Compl. Specn. 14 pages.

CLASS : 60 D. 160039  
Int. Cl. A44b 11/06.

"A TONGUE AND BUCKLE FASTENER FOR A SAFETY BELT".

Applicant : BRITAX (WINGARD) LTD., OF CHANDLER ROAD, CHICHESTER WEST SUSSEX, ENGLAND, A BRITISH COMPANY.

Inventor : DOUGLAS JAMES CUNNINGHAM.

Application for patent No. 442/Del/83 filed on 1st July, 1983. Convention date 2nd July, 1982/8219285/(U.K.).

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

### 12 Claims

A tongue and buckle fastener for a safety belt comprising a tongue having a latching formation thereon, and a buckle comprising a body in which a passageway is provided for receiving the tongue, a spring loaded tongue ejector slidable in the passageway, a latch member movable transversely of the passageway between a latching position in which it engages with the latching formation to retain the tongue in the passageway, and a release position in which the tongue is displaceable by the ejector outwardly from the passageway from its retained position, the latch member being biased into its release position by a biasing spring, a first toggle member located within the body for pivotal movement about a fulcrum on the latch member and abutting a second toggle member which is located in engagement with an abutment on the body for movement relative thereto, the toggle members being limited to a range of movement between a first stable position in which the latch member is held in its latching position against the action of its biasing spring, and a second stable position in which the latch member is in its release position, locking means within the body being arranged to activate the blocking means when the tongue is inserted into the passageway, and manually operable release means projecting from the body being arranged to initiate movement of the toggle members into their second position.

Compl. specn. 13 pages.

Dr. 7 sheets.

CLASS : 12 B & D. 160040  
Int. Cl. : C21d 1/06, 1/34.

"A PROCESS FOR TREATMENT OF MAGNETIC MATERIALS".

Applicant : ARMCO INC., A CORPORATION OF THE STATE OF OHIO, OF 703 CURTIS STREET, MIDDLETOWN, OHIO, U.S.A.

Inventors : GARY LOUIS NEIHEISEL & JERRY WILLIAM SCHOEN.

Application for Patent No. 454/Del/83 filed on 4th July, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

### 13 Claims

A process for treatment of magnetic materials of the kind as herein described having a plurality of magnetic domains and an insulative coating thereon chosen from the class consisting of a mill glass, a secondary insulative coating of the kind herein described, or both in order to improve the core loss thereof, said process comprising the step of momentarily irradiating said magnetic materials having said insulative coating thereon with a continuous wave laser so as to subdivide said magnetic domains without damage to said insulative coating.

Compl. Specn. 29 pages.

Dr. 3 sheets.

CLASS : 163 A. 160041

Int. Cl. : F04b 35/04.

"A LIQUID PUMP".

Applicant : INSTITUT CERAC S.A., A SWISS COMPANY, OF CHEMIN DES LARGES PIECES, CH-1024 ECUBLENS, SWITZERLAND.

Inventor : CARL SVERKER MAGNUSSON HARTWIG.

Application for Patent No. 493/Del/83 filed on 19th July, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

### 4 Claims

A liquid pump comprising an impeller (5) housed in a pump casing, said impeller having a blade or vane of the Francis or propeller type, said impeller being connected to a brushless a.c. motor (2), said motor being connected to a static inverter (6) having an output frequency of 100—1000 Hz for supplying electrical energy to said motor, characterised in that sensing means (16) are provided adjacent said impeller for detecting a cavitation state in the pump, and control means (79) are connected to said static inverter and also to the sensing means, said control means producing, upon the detection of cavitation a control signal causing the inverter (6) to lower its output frequency and thus the speed of the impeller, so that cavitation ceases.

Compl. specn. 19 pages.

Dr. 4 sheets.

CLASS : 131 A<sub>1</sub> & B<sub>1</sub> 160042

Int. Cl. : E21b 23/00.

AUTOMATED APPARATUS FOR COUPLING AND UNCOUPLING PIPE IN A DRILL RIG SYSTEM.

Applicant: FARED DRILLING TECHNOLOGIES, INC., A COLORADO CORPORATION, U.S.A., OF 3820 REVERE STREET, SUITE C DENVER, COLORADO-80239, U.S.A.

Inventor : ROGER JOHN KRUEGER.

Application for Patent No. 503/Del/83 filed on 25th July, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

### 5 Claims

An automated apparatus for coupling and uncoupling pipe in a drill rig system including a drill rig platform, comprising :

upper arm means for engaging an upper portion of pipe;

lower arm means for engaging a lower portion of pipe;

fingerboard means for holding an upper portion of pipe received from said upper arm means;

transducer means connected to said upper arm means and said lower arm means for detecting whether said upper arm means has gripped pipe and for detecting whether said lower arm means has gripped pipe and for detecting whether said lower arm means has gripped pipe;

control means (30, 40) electrically connected to said upper arm means, said lower arm means, said fingerboard means, and said transducer means, said control means (30, 40) moving said upper arm means, said lower arm means, and said fingerboard means in order to move the pipe, said upper arm means and said lower arm means moving the pipe when said transducer means sends an electrical signal to said control means informing said control means that pipe is gripped by said upper arm means and said lower arm means, respectively; and

transport means supported on the drill rig platform for holding a lower portion of pipe that is moved in order to place the lower portion of pipe in a desired position.

Compl. specn. 53 pages.

Drg. 10 sheets

CLASS : 32 E

160043

Int. Cl. : C 08 b-19/00 25/00.

PROCESS FOR THE PREPARATION OF A COLOURED POLYSACCHARIDE PARTICULATE MATERIAL.

Applicant : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH RAJ MARG, NEW DELHI-110001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTERED OF SOCIETIES ACT (ACT XXI OF 1860).

Inventors : RAJAN BHADRA AND SUBHABRATA SEN GUPTA.

Application for Patent No. 514/Del/1983 filed on 28th July, 1983.

Complete specification left on 19th October 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

#### 4 Claims

A process for the preparation of a coloured polysaccharide particulate material which comprises crosslinking xylan with epi chlorohydrin in the presence of an alkali as a cross linking agent to form a gel, coupling the gel with an indicator dye by controlled peroxidation followed by schiff base coupling, subjecting the product to disintegration and differential sedimentation for the selection of the particles of the desired range treating the particles with protein for stabilization.

Provisional specification 6 pages.

Drg. 2 sheets

Complete specification 8 pages.

CLASS : 128 C

160044

Int. Cl. : A61k 5/00.

DENTAL PROSTHESIS AND METHOD FOR MAKING SAME.

Applicants : DNEPROPETROVSKY MEDITSINSKY INSTITUT, OF ULITSA DZERZHINSKOGO, 9, DNEPROPETROVSK, USSR, UKRAINSKY INSTITUT USOVERSHENSTVOVANIA VRACHEI, OF ULITSA ARTFEMA, 8 KHARKOV, USSR, KHARKOVSKY POLITEKHNIЧЕСKY INSTITUT IMENI V. I. LENINA, OF ULITSA FRUNZE, 21, KHARKOV, USSR AND KHARKOVSKY INSTRUMENTALNY ZAVOD, OF ULITSA GRFKOVSKAYA, 77, KHARKOV, USSR, STATEOWNED ORGANIZATIONS EXISTING UNDER THE LAW OF THE USSR.

Inventors : JURY ALEXEEVICH TARASOV, LJUDMILA VLADIMIROVNA ZHIVKOVA, ANATOLY MIKHAILOVICH KOTLYAR, VASILY PAVLOVICH PANCHOKHA, NATALIA VASILIEVNA ALEXEENKO, ANATOLY IVANOVICH GRABCHENKO, VIKTOR GEORGIEVICH LAPPO, ALBERT MIKHAILOVICH BOYARUNAS, VITALY FEDOROVICH DROZHIN, ANATOLY APANASIEVICH ANDREEV, IGOR VASILIEVICH GAVRILKO, MIKHAIL ABRAMOVICH NAPADOV, VALENTIN GLEBOVICH PADALKA, ABRAM LVOVICH SAPOZHNIKOV.

Application for Patent No. 543/Del/1983 filed on 8th August 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

#### 11 Claims

A dental prosthesis comprising a base from a durable corrosion-resistant metallic alloy and at least one external decorative layer from a harder material than the base and comprising nitrides, oxynitrides, carboxynitrides, cyanonitrides and/or monoxides of metals of the subordinate subgroup of Group IV of the periodic system, the thickness ratio of the external decorative layer to the base being equal to 1 : 10-200 respectively.

Complete specification 54 pages.

CLASS : 32E.

160045

Int. Cl. : CO 8F, 3/04 and 29/04.

A PROCESS FOR POLYMERISATION OF ETHYLENICALLY UNSATURATED MONOMERS.

Applicant : IMPERIAL CHEMICAL INDUSTRIES PLC OF IMPERIAL CHEMICAL HOUSE, MILLBANK, LONDON SW1P 3JF, ENGLAND, A BRITISH COMPANY.

Inventors : STEPHEN PARRY DAVIES & MORICE WILLIAM THOMPSON.

Application for Patent No. 552/Del/1983 filed on 11th August, 1983.

Convention application No. 82 28046 dated 1-10-1982 and 82 28151 dated 1-10-1982 (both U.K.).

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

#### 19 Claims

A process for polymerisation of ethylenically unsaturated monomers in which at least one ethylenically unsaturated monomer, having a solubility in water in the range 0.08%—8% by weight but giving rise to a polymer which is insoluble in water, is emulsified in water and is subjected in that state to polymerisation in the presence of (a) a redox-type polymerisation initiator system comprising hydrogen peroxide in combination with a non-ionic water-soluble activator compound containing in the molecule (i) a polymer chain which has a molecular weight of at least 400, and is *per se* soluble in the aqueous phase, and (ii) a single terminal unsaturated grouping which is copolymerisable with the monomer or monomers being polymerised.

Complete specification 54 pages.

CLASS : 33 D & 108 C<sub>2</sub>

160046

Int. Cl. : C 21 c—1/00.

CONTINUOUS STEELMAKING AND CASTING.

Applicant : WILLIAM LYON SHERWOOD, A CANADIAN CITIZEN, OF 553 GRANVILLE STREET, 8TH FLOOR, VANCOUVER, B.C., CANADA V6C 1Y6.

Inventor : WILLIAM LYON SHERWOOD.

Application for Patent No. 567/Del/1983 filed on 19 Aug 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 29 Claims

A process for continuous steel making and casting from rotary furnaces, characterized by the combination of the following steps occurring simultaneously :—

- (a) maintaining a molten metal bath within a rotary furnace having an axial charge and opening and an axial discharge and opening with the bath surface exposed to atmospheric pressure;
- (b) maintaining an enclosed molten metal column external to the furnace having the top surface exposed to a controlled vacuum pressure and confined within an enclosed vacuum chamber having an enclosed duct within a siphon tube having the inlet end inserted through the axial furnace discharge opening down through the bath surface and submerged in said bath and the outlet existing into said Chamber;
- (c) maintaining a molten steel casting pool connecting with said column via at least one submerged channel, with the top surface at a level higher than the column bottom level extremity and subjected to a constant reference gas pressure; for example atmospheric pressure;
- (d) allowing flow of metal from within said column into said casting pool by way of said submerged channel connecting between them;
- (e) allowing pouring of molten steel for casting through at least one submerged nozzle opening from said casting pool; and
- (f) withdrawing molten metal from said bath into said column under the influence of said vacuum pressure via said enclosed duct at a rate providing for continual replenishment of the steel pouring from said casting pool for casting.

An apparatus for continuous steelmaking and casting from rotary furnaces, characterized by an assembly comprising the following elements, in combination :

- (a) a elongated rotary furnace adapted for containing a bath of molten metal with axial charge and discharge end openings;
- (b) charging means adapted for introducing metallic from charge material into the furnace through said charge end opening;
- (c) a continuous casting tundish having at least one submerged nozzle opening adapted for pouring by gravity from said tundish;
- (d) an enclosed vacuum chamber incorporated into the feed section of said tundish comprising a refractory enclosure with a bottom section having a bottom discharge opening into the tundish proximate the tundish bottom and an enclosed top section projecting upwards above said tundish;
- (e) a controlled pressure vacuum line connecting into said enclosed chamber adapted for maintaining a controlled vacuum pressure within said chamber and also withdrawing any gases evolved from molten metals within or introduced by way of any air leakage or other introduction from an external source during withdrawal;
- (f) a metal withdrawal siphon tube of refractory material with the inlet end adapted for insertion through said discharge end opening down into said molten metal and the outlet end adapted for connection into the upper part of said vacuum chamber, said siphon tube having an internal duct adapted for transferring molten metal from the furnace into said chamber under the influence of said controlled vacuum pressure; and
- (g) closing and opening means for said bottom discharge opening adapted to be closed and block free passage of tundish air at the time of applying initial chamber when it is effectively empty and to be opened to permit flow when sufficient metal pool, considering both tundish and withdrawal chamber together, to maintain said opening thereafter submerged.

Compl. specn. 27 pages.

Drg. 3 sheets

Class : 25A.

160047

Int. Class : E04d-1/00,  
E04c-13/00.

"PROCESS FOR THE MANUFACTURE OF A GLASS TILE".

Applicant : R & M COMPANY, a proprietorship firm, whose proprietor is : RAVI RAJ GUPTA of 4635, Ajmeri Gate, Delhi-110006, India.

Inventor : RAVI RAJ GUPTA.

Application for Patent No. 582/DEL/1983 filed on 26th August 1983.

Antidated to 4-6-1980, divided out of Application No. 407/DEL/1980, filed on 4-6-1980.

Appropriate Office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

(12 Claims)

A process for the manufacture of glass tiles from molten glass comprising the step of applying to at least the front face of the formed glass tile a known granular or powder grade ceramic or glass colour or frits with or without a known reactive flux and then subjecting the tile to a heat treatment at a temperature of between 700 to 950°C such as to impart a rounding of the edges on at least the front face of the tile.

(Complete Specification 13 pages) (Drawing 1 sheet)

Class : 56-B.

160048

Int. Cl. : C 10 g 9/44.

PROCESS AND APPARATUS FOR THE THERMAL CRACKING OF HEAVY HYDROCARBON FEED.

Applicant : STONE & WEBSTER ENGINEERING CORPORATION, OF 245 SUMMER STREET, BOSTON, SUFFOLK COUNTY, MASSACHUSETTS 02107, UNITED STATES OF AMERICA.

Inventors : 1. SWAMI NARAYANAN, 2. AXEL RICHARD JOHNSON, 3. HERMAN NICHOLAS WOEBCKE.

Application No. 1160/Cal/83 filed September 22, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

11 Claims

A process for cracking heavy hydrocarbon feed selected from the group consisting of naphtha, kerosene, atmospheric gas oil vacuum gas oil and resid to produce olefins comprising :

(a) diluting the heavy hydrocarbon with steam in a ratio of less than 0.2 pound of steam per pound of hydrocarbon,

(b) elevating the temperature of the heavy hydrocarbon with the steam diluent to a temperature to effect partial thermal cracking;

(c) mixing a steam of light hydrocarbon feedstock selected from the group consisting of ethane, propane, propylene, normal and iso-butane, raffinates and naphthas, or their mixture with steam diluent in a ratio of from 0.3 to 0.6 pound of steam per pound of light hydrocarbon;

(d) thermally cracking the light hydrocarbon feedstock to its maximum acceptable conversion;

(e) delivering the completely cracked light hydrocarbon effluent to the stream of partially cracked hydrocarbon to serve as diluent for the partially cracked hydrocarbon;

(f) further cracking the composite stream; and  
 (g) quenching the effluent from the cracked composite stream of heavy and light hydrocarbon to terminate reactions.

(Compl. Specn. 18 pages.

Drg. 2 sheets

Class : 32-A<sub>1</sub>

160049

Int. Cl. : C 09 b 45/08.

# PROCESS FOR THE PREPARATION OF COPPER COMPLEX MONOAZO COMPOUNDS.

Applicant : HOECHST AKTIENGESellschaft OF D-6230 FRANKFURT AM MAIN 80, FEDERAL REPUBLIC OF GERMANY.

Inventor : I. FRITZ MEININGER.

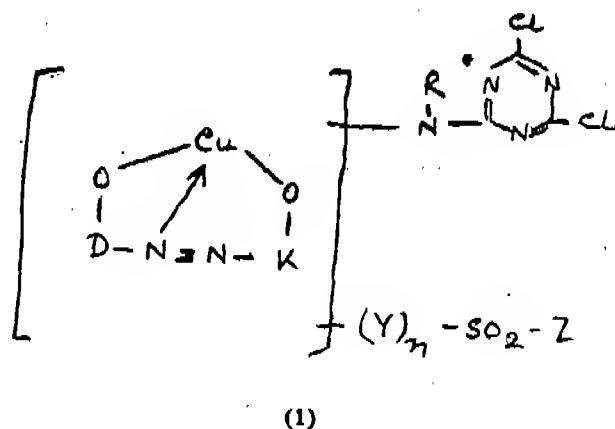
Application No. 34/Cal/85 filed January 18, 1985.

Division of Application No. 772/Cal/82 dated 1st July, 1982.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

## 14 Claims

A process for the preparation of a water-soluble copper complex monoazo compound of the general formula (1) of the accompanying drawing.



in which

D is the radical of a diazo component of the benzene or naphthalene series whose metal-complexing hydroxy respectively oxy group is in the ortho-position relative to the azo bridge.

K is the radical of a coupling component of the benzene, naphthalene, pyridone or pyrazolone series and having a phenolic or enolic hydroxy group which complexes the copper, and to which coupling component the azo group has been coupled in the ortho-position, relative to, or adjacent to, this phenolic or enolic hydroxy respectively oxy group.

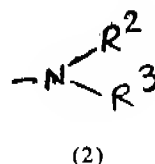
R is a hydrogen atom or an alkyl group of 1 to 4 C-atoms,

Y is the radical of the formula -NH-, -N(lower alkyl)- or -CH<sub>2</sub>-

n is the number zero or 1,

Z is the vinyl, B-acetoxyethyl, B-thiosulfatoethyl, B-chloroethyl or B-sulfatoethyl group; and  
 4-117GI/87

X is a radical of the formula (2),



in which

R<sup>2</sup> is a hydrogen atom or an optionally substituted, branched or unbranched alkyl radical or a cycloaliphatic radical and

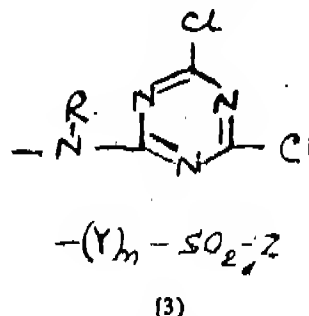
R<sup>3</sup> is a hydrogen atom or an optionally substituted, branched or unbranched alkyl radical or an optionally substituted aryl radical,

R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> being identical or different,

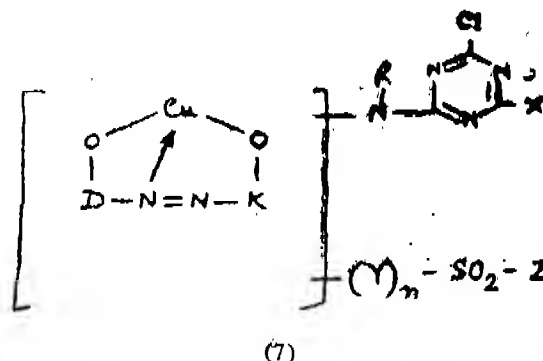
or where

R<sup>2</sup> and R<sup>3</sup>, together with the nitrogen atom, form a heterocyclic, saturated ring which may contain a further heteroatom,

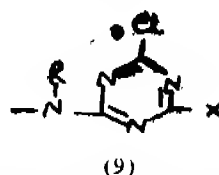
and in which the groups of the formulae (3) and (4)



in which R, X, Y, Z and n have the above mentioned meaning, are bonded to the radical D and to the radical K, either separately from one another or simultaneously to D or K, which comprises reacting a dichlorotriazinylamino compound of the formula (7)

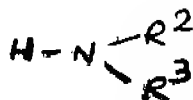


in which D, K, R, Y, Z and n have the meanings mentioned above and in which the radicals corresponding to the general formula (4) and to the general formula (9)



in which Y, n, Z and R have the meanings mentioned above, are bonded to D and K, separately from one another or simultaneously to D or K,

in an equimolar amount with an amine of the general formula (8)



in which  $\text{R}^2$  and  $\text{R}^3$  have the meanings mentioned above.

(Compl. Specn. 48 pages. Drg. 7 sheets)

Class : 32-C

160050

Int. Cl. : C 07 c 9/00, 11/00.

AN IMPROVEMENT IN CORELATING TO THE PROCESS FOR THE PREPARATION OF ALLYL CAPROATE.

Applicant : RECKITT & COLMAN OF INDIA LIMITED, OF 41 CHOWRINGHEE ROAD, CALCUTTA-700071, STATE OF WEST BENGAL, INDIA.

Inventors : 1. DR. SURENDRA PRASAD BHATNAGAR, 2. DR. AJAI PRAKASH, 3. DR. SATISH CHANDRA MISRA, 4. DR. RAMANUJAN SRINIVASA PRASAD, 5. DR. SUSHEEL KUMAR SURI, 6. MR. AJAI KUMAR BAJPAI.

Application No. 96/Cal/85 filed February 11, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 5 Claims

An improvement in or relating to the process for the preparation of allyl caproate which comprises esterification of caproic acid with allyl alcohol characterized in that said esterification is carried out in the presence of macroreticular strongly acid cation exchange resin carrying active  $-\text{SO}_3^-$  group such as sulfonated co-olymer of styrene and divinyl-benzene or sulfonated macroporous cross linked polystyrene as catalyst while using dichloroethane as solvent.

(Compl. Specn. 7 pages. Dr. Nil)

Class : 32-C

160051

Int. Cl. C 07 c 9/00, 11/00.

AN IMPROVEMENT IN OR RELATING TO THE PROCESS FOR THE PREPARATION OF ETHYL CAPROATE.

Applicant : RECKITT & COLMAN OF INDIA LIMITED, OF 41 CHOWRINGHEE ROAD, CALCUTTA-700071, STATE OF WEST BENGAL, INDIA.

Inventors : 1. DR. SURENDRA PRASAD BHATNAGAR, 2. DR. AJAI PRAKASH, 3. DR. SATISH CHANDRA MISRA, 4. DR. RAMANUJAN SRINIVASA PRASAD, 5. SUSHEEL KUMAR SURI, 6. MR. AJAI KUMAR BAJPAI.

Application No. 97/Cal/85 filed February 11, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 5 Claims

An improvement in or relating to the process for the preparation of ethyl caproate which comprises reacting caproic acid with ethanol, characterised in that reaction is carried out in the presence of macroreticular strongly acid cation exchange resin carrying active  $-\text{SO}_3^-$  group such as sulfonated copolymer of styrene and divinyl-benzene or

sulfonated macroporous cross linked polystyrene as catalyst using dichloroethane as solvent.

(Compl. Specn. 8 Pages.

Drg. Nil)

CLASS : 32-F3 b; 53-A; 60-X1

160052

Int. Cl. C 07 d 89/12.

IMPROVEMENT IN OR RELATING TO THE PROCESS THE PREPARATION OF 5,6-DIHYDRO-2-METHYL-N-PHENYL-1, 4-OXATHIN-3-CARBOXAMIDE.

Applicant : RECKITT & COLMAN OF INDIA LIMITED, OF 41 CHOWRINGHEE ROAD, CALCUTTA-700071, STATE OF WEST BENGAL, INDIA.

Inventors : 1. DR. SURENDRA PRASAD BHATNAGAR, 2. DR. BAJRANG BALI SINGH, 3. DR. SATISH CHANDRA NIGAM, 4. MR. ARAKALI SREENIVASARAO RADHAKRISHNA, 5. MR. KOTHAPALLI RADHAKRISHNA PARSAD RAO.

Application No. 98/Cal/85 filed February 11, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 4 Claims

An improvement in or relating to the process for the preparation of 5,6-dihydro-2-methyl-N-phenyl-1 4-oxathin in-3-carboxamide which comprises, converting acetoacetanilide to chloro-acetacetanilide by reacting the same with sulphuryl chloride in presence of a solvent such as toluene, reacting the obtained chloro-acetoacetanilide with mercaptoethanol in presence of a base such as sodium acetate or sodium hydroxide and a solvent such as ethanol or methanol to form an intermediate compound 2-(2-hydroxyethylthio)-acetoacetanilide enol which is cyclized by dehydration in presence of a catalyst and solvent to obtain 5, 6-dihydro-2-methyl-N-phenyl-1, 4-oxathin-3-carboxamide, characterized in that the catalyst used consists of macroreticular strongly acid cation exchange resin carrying active  $-\text{SO}_3^-$  group such as "Amberlyst-15 H<sup>+</sup>-ion exchange resin" or "Indian CXC 125" and that cyclization with the said catalyst is carried out at a temperature of 80-110°C.

(Compl. specn. 9 pages.

Drg. 1 sheet)

CLASS : 80-H.

160053

Int. Cl. : B 01 d 43/00.

"MULTI-STAGE APPARATUS FOR THE SEPARATION OF FINELY DIVIDED SOLIDS FROM LIQUIDS".

Applicant & Inventor : MIGUEL FAVA BRIGANTE, OF ELECTRO-MAG (INDIA) PVT. LTD., 23/24, RADHA BAZAR STREET, CALCUTTA-700 001, INDIA.

Application No. 145/Cal/85 filed February 26, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 2 Claims

In an apparatus for separating finely divided solid particles suspended in water, the combination of :

a plurality of fluidly interconnected settlement tanks each having an inlet for raw water and an outlet for treated water, each tank having a conical bottom and an extractor means adjacent the conical bottom of said tank for withdrawing gravity settled material therefrom and leaving a supernatant liquid in a supernatant zone above a bottom settlement zone;

a circulating pump, including conduit means fluidly connected to filter pre-treating unit for passing raw water there-through;

a filter pre-treating unit fluidly connected to the inlet of each tank comprising a pretreatment conduit, an electromagnetic aluminum wire winding fed by  $24 \pm$  volts DC surrounding said conduit and extending therethrough, a step down transformer for 220 to 110 volts A.C. a DC rectifier and a casing for the conduit and unit;

said conduit containing a helical screw impeller rotatably mounted therein which has about  $2\frac{1}{2}$  turns spaced at about 1/16 inch from the inner wall of said conduit which rotates responsive to water flow in said conduit; and

said helical screw impeller having its first turn starting close to the innerwall of said conduit and inducing therein a magnetic field by its rotation under the influence of said electromagnetic winding surrounding said conduit for inducing a magnetic field providing a positive sweeping action to the suspended particles in the supernatant liquid above the bottom settlement zone of each tank.

Compl. specn. 14 pages.

Drg. 2 sheets.

CLASS : 32-F<sub>2</sub> b + 55-E<sub>3</sub>, 4.

160054

Int. Cl. : A 61 k 17/00, 27/00; C 07 c 103/52.

PROCESS FOR THE PREPARATION OF NOVEL PEPTIDES WHICH ANTAGONIZE THE ANTI-DIURETIC AND/OR VASOPRESSOR ACTION OF ARGININE VASOPRESSIN.

Applicants : 1. MEDICAL COLLEGE OF OHIO, OF 3000 ARINGTON AVENUE TOLEDO, OHIO 43699, U. S. A.; 2. TRUSTEES OF COLUMBIA UNIVERSITY, OF 116 STREET AND BROADWAY NEW YORK, N. Y. 10027, U. S. A.

Inventors : 1. MAURICE MANNING, 2. WILBUR HENDERSON SAWYER.

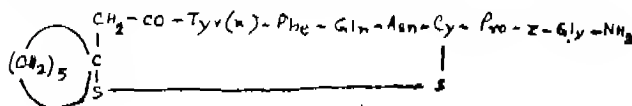
Application No. 173/Cal/83 filed March 6, 1985.

Division of Application No. 276/Cal/82 dated 11th March, 1982.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 1 Claim

A process for the production of a novel peptide of the formula IX of the accompanying drawings,



19

wherein X is H, methyl or ethyl and Z is L- or D-Arg, which comprises the steps of :

- (a) treating Boc-Gly-resin by solid phase synthesis by six cycles of deprotection, neutralization and coupling with a selected amino acid such as  $\alpha$ -phenylalanine described to produce the corresponding protected heptapeptidyl resin of the formula

Boc-Phe-Gln-Asn-Cy(Bzl)-Pro-Z(Tos)-Gly-resin wherein Z is as above;

- (b) treating the said protected heptapeptidyl resin produced in steps (a) with L-Tyr-X to produce the corresponding tertbutoxycarbonylocta-peptidyl resin of the formula

Boc-Tyr (X)-Phe-Gln-Asn-Cy(Bzl)-Pro-Z (Tos)-Gly-resin, wherein X and Z are as above;

- (c) ammonolyzing by known method the said tert-butoxycarbonylocta-peptidyl resin produced in step (b) to the corresponding Boc-octa-peptide amide of the formula

Boc-Tyr (X)-Phe-Gln-Asn-Cy (Bzl)-Pro-Z (Tos)-Gly-NH<sub>2</sub>,

- (d) converting the said Boc-octa-peptide amide produced in step (c) to a corresponding  $\beta$ -(S-benzyl-mercapto)- $\beta$ ,  $\beta$ -cyclopentamethylene propionylocta-peptide amide of the formula X by coupling a deprotected neutralized, solution of said tert-butoxycarbonylocta-peptide amide with p-nitrophenyl- $\beta$ -(S-benzyl-mercapto)- $\beta$ ,  $\beta$ -cyclopentamethylene propionate, in the presence of N-hydroxy-benzotriazole monohydrate, and

- (e) reducing the said  $\beta$ -(S-benzyl-mercapto)- $\beta$ ,  $\beta$  cyclopentamethylenepropinylocta-peptide amide produced in step (d) with sodium in liquid ammonia and oxidatively cyclizing by method known in the art the resulting disulfhydryl compound with potassium ferricyanide.

Compl. Specn. 41 pages.

Drgs. 2 sheets.

CLASS : 32-F<sub>2</sub> d.

160055

Int. Cl. : C 09 b 29/36.

A PROCESS FOR THE PREPARATION OF WATER-SOLUBLE PYRIDONE-AZO COMPOUNDS.

Applicant : HOECHST AKTIENGESSELLSCHAFT OF D-6230 FRANKFURT AM MAIN 80, FEDERAL REPUBLIC OF GERMANY.

Inventors : 1. FOLKER KOHLHAAS, 2. FRITZ MEININGER.

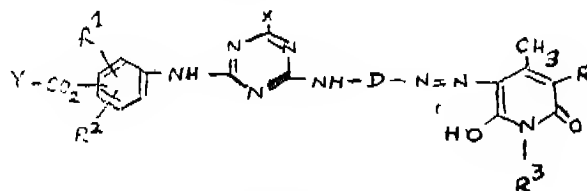
Application No. 195/Cal/85 filed March 15, 1985.

Division of Application No. 1207/Cal/82 dated 15th October, 1982.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

#### 12 Claims.

A process for the preparation of a water-soluble monoazo compound of the formula (1) the accompanying drawings



Formula 1

in which

R1 is a hydrogen atom, a lower alkyl group, a lower alkoxy group or a chlorine atom;

R2 is a hydrogenatom, a lower alkyl group or a lower alkoxy group

R3 is a lower alkyl group which is substituted by a hydroxy group, a lower alkanoylamino group, a sulfato group of the formula -OSO<sub>3</sub>M in which M is a hydrogenatom or the chemical equivalent of a monovalent, divalent or trivalent metal, in particular of an-alkali metal or alkaline earth metal, or is a carboxy group of the formula -COOM in which M

is defined as above, or a sulfo group of the formula  $-SO_3M$  in which M is defined as above;

R is a hydrogenatom the carbamoyl group, the cyano group or a sulfo group as defined above;

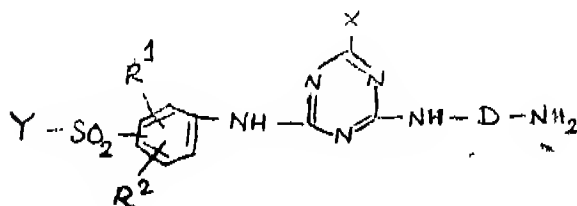
D is the meta-or para-phenylene group substituted by one or two sulfo groups as defined above or by one or two sulfo groups and a lower alkyl group;

X is a chlorine or fluorine atom;

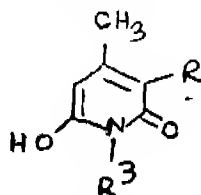
Y is the vinyl group or an ethyl group which contains bonded in the B-position a radical which can be eliminated under alkaline conditions as an anion; and

the formula moieties R1, R2, R3 and R can be identical to or different from one another, which

comprises coupling a diazonium compound of an amine of the formula (2)



Formula 1



Formula 3

in which R1, R2, D, X, and Y have the meanings mentioned above, with a pyridone compound of the formula (3) in which R and R3 are defined as above at a pH of from 4 to 7.5; preferably of from 5 to 7, and at a temperature of from 5 to 25°C.

Compl. Specn. 35 pages.

Drg. 21 sheets.

CLASS. 83-A.

160056.

Int. Cl. A 23 d 5/00.

A PROCESS FOR THE PREPARATION OF A FOOD PRODUCT.

Applicant : JOHN WYETH & BROTHER LIMITED, OF HUNTERCOMBE LANE SOUTH, TAPLOW, MAIDENHEAD, BERKSHIRE, SL6 0PH, ENGLAND.

Inventor : 1. ARTHUR WALTER THOMAS RULE.

Application No. 856/Cal/85 filed December 3, 1985.  
Convention dated 24th June, 1983 (83 17248) U.K.

Division of Application No. 400/Cal/84 dated 13th June, 1984.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

29 Claims.

A process for the preparation of a food product adapted for human infant nutrition, in which a fat composition that contains

(a) palm oil;

(b) an oil selected from olive oil and oleic oil;

(c) an oil selected from coconut oil, babassu oil and palm kernel oil;

(d) an oil selected from soybean oil, corn oil, sunflower seed oil, cottonseed oil and safflower oil and, if desired;

(e) up to 2%, calculated on the weight of the fat composition, of a lecithin;

in such proportions that the fat composition contains, per 100 parts by weight of fatty acids,

(i) 17 to 22 parts by weight of linoleic acid;

(ii) 28 to 44 parts by weight of oleic acid;

(iii) 7 to 25 parts by weight of the sum of lauric and myristic acids; and

(iv) 18 to 26 parts by weight of the sum of palmitic and stearic acids, is combined with a protein source and a carbohydrate.

Compl. Specn. 18 pages.

Drg. Nil.

CLASS. 39-E.

160057.

Int. Cl. C 01 f 11/00.

A REVERSIBLE LIQUID/SOLID PHASE CHANGE COMPOSITION OF CALCIUM CHLORIDE HEXAHYDRATE WITH A POTASSIUM SALT.

Applicant : THE DOW CHEMICAL COMPANY, OF 2030 DOW CENTER, ABBOTT ROAD, MIDLAND, MICHIGAN 48640, UNITED STATES OF AMERICA.

Inventors : 1. GEORGE ASHEL LANE, 2. HAROLD EVERETT ROSSOW.

Application No. 161/Cal/86 filed March 5, 1986.

Division of Application No. 1202/Cal/82 dated 14th October, 1982.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

7 Claims.

A reversible liquid/solid phase change composition comprising an admixture of hydrated  $CaCl_2$  and a potassium salt wherein the anion of the potassium salt forms a substantially less soluble salt with calcium and the potassium salt is added to the hydrated  $CaCl_2$  to modify the semi-congruent melting behavior of  $CaCl_2 \cdot 6H_2O$  to the extent that the mixture approaches the congruent melting behavior of a congruently melting mixture and to reduce, during retrieval of the stored heat by crystallization of the mixture, the formation of crystalline  $CaCl_2$  hydrate phases than  $CaCl_2 \cdot 6H_2O$  said composition further comprises a salt selected from the group consisting of sodium and strontium salts, wherein the anion of said sodium and/or strontium salt forms a substantially less soluble salt with calcium, said composition contains from 37 to 51 weight percent calcium chloride; from 0.5 to 26 weight percent potassium salt from 0.04 to 2.0 percent by weight of the sodium ion and from 0.05 to 2.0 percent of the strontium ion, the composition optionally contains one or more nucleating agent or agents in an amount of from 0.005 to 2.0 weight percent to reduce supercooling to 5°C or less during retrieval of the stored heat by crystallization.

Compl. Specn. 19 pages.

Drg. Nil.

CLASS : 13A & 143 D1, 1, 5

160058

Int. Class : B 65B—11/00, B 65H—65/00 & 81/00.

"A CARTON OVERWRAPPING MACHINE".

Applicants : BIRINDER BHULLAR, of 73, Sector 2, Chandigarh, India, an Indian national.

Inventors : BIRINDER BHULLAR.

Application for Patent No. 002/DEL/1984 filed on the 02nd January, 1984. Complete Specification left on the 18th April, 1985 Post dated to 02nd March, 1984.

Appropriate office for filing opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 3 Claims.

A carton overwrapping machine for wrapping cartons with films or sheets of heat sealable materials comprising a wrapping material feeding reel, a conveyer belt for feeding in cartons, pickers for drawing off a measured length of wrapping material from the reel, a knife for cutting said measured length of film, an elevator for lifting a carton and a measure of length of the wrapping material into a fold box, and underfolder for forming under folds of the wrapping material below the carton, end folders for forming the end folds of the wrapping material at the two ends of the carton, bottom electric heaters for heat sealing the under folds and side electric heaters for heat sealing the bucked in end folds; and wherein the main drive unit includes a cam provided on a cam shaft driven by an electric motor at the desired reduced speed through a gear box, clutch, a system of gears and a chain drive, the cam actuating the picker, the elevator, the underfolder, said end folder and said knife for cutting of the film or sheet through different linkages.

(Provisional specification 05 pages,  
Complete specification 14 pages.

Drg. 9-sheets)

CLASS : 24 B, F.

160059

Int. Class : F 16 d, 55/02, 55/224.

## SLIDING CALIPER DISC BRAKE.

Applicant : SOCIETE ANONYME D.B.A., A FRENCH COMPANY, OF CENTRE PARIS PLEYEL, 93521 ST. DENIS CEDEX 01, FRANCE.

Inventor : JEAN CLAUDE MERY.

Application for Patent No. 033/DEL/1984 filed on the 10th January, 1984.

Appropriate office for filing opposition proceedings (Rule 4, Patents Rules 1972) Patent Office Branch, New Delhi-110 005.

## 4 Claims

Sliding caliper disc brake having a caliper slidably mounted by means of the axial pins on a fixed support, operating means integral with the caliper in order to urge directly a first friction element against a first face of the disc and, by reaction through the sliding caliper, to urge a second friction element against the other face of the disc, the pins being fastened to the caliper and passing through slide guide bores formed in arms of the said fixed support which extend axially beyond the periphery of the disc which, when it turns in the forward direction of rotation, (AV) defines a front arm and a rear arm, characterised in that said caliper has two openings formed in a portion straddling the disc one of said openings receiving said rear arm and the corresponding pin and permitting the radial extraction of the friction elements, and the second one of said openings receiving said front arm and the corresponding pin.

Complete specification 10 pages.

Drawing 2 sheets

CLASS : 24 B, E.

160060

Int. Class : F 16 d, 55/02, 55/224.

## SLIDING CALIPER DISC BRAKE.

Applicant : SOCIETE ANONYME D.B.A., A FRENCH COMPANY, OF CENTRE PARIS PLEYEL, 93521 ST. DENIS CEDEX 01, FRANCE.

Inventor : JEAN CLAUDE MERY.

Application for Patent No. 034/DEL/1984 filed on the 10th January, 1984.

Appropriate office for filing opposition proceedings (Rule 4, Patents Rules 1972) Patent Office Branch, New Delhi-110 005.

## 5 Claims

Sliding caliper disc brake having slidably mounted by means of two axial pins on a fixed support, operating means being integral with the caliper in order to urge directly a first friction element against a first face of the disc and, by reaction through the sliding caliper to urge a second friction element against the other face of the disc, the pins being fastened to the caliper and passing through slide guide bores formed in the said fixed support, characterised in that said axial pins pass through a central opening in the caliper, permitting the radial extraction of said friction elements and in that said pins are prestressed in order to urge towards one another two caliper portions placed one on each side of the disc, thus increasing the rigidity of the caliper portions passing above the said disc on each side of said opening.

Complete specification 9 pages.

Drawing two sheets.

Class : 144A & 146D1.

160061

Int. Class : G 02b—5'08.

## A METHOD OF PRODUCING MIRRORS OF OPTICAL QUALITY FROM PLASTIC MATERIALS.

Applicant : SPAFAX HOLDINGS P.L.C., a British Company, of Cheney Court, Ditteridge, Box, Nr. Corsham, Wiltshire SN14 9PL, England.

Inventors : DENNIS WILLIAM ROBINSON.

Application for Patent No. 051/DEL/1984 filed on the 18th January, 1984. Convention date January 26, 1983 (8302165). (U.K.).

Appropriate office for filing opposition proceedings (Rule 4, Patents Rules 1972) Patent Office Branch, New Delhi-110 005.

## (16 Claims)

A method of producing a mirror of optical quality from plastics material comprising subjecting the plastics material to a degreasing operation by vapour degreasing in a fluorocarbon solvent and then transferring the material to an ultrasonically vibrated heated solution of the same solvent, performing a molecular cleaning operation in a manner as herein defined, applying such as herein described a layer of hard glass or a substance having hard glass-like properties and subsequently applying by a magnetron sputtering operation a coating of specular reflective material of the kind such as herein defined said coating being up to 5.0 microns thick.

(Complete Specification 11 Pages)

Class : 116C

160062

Int. Class : B65 g 15/60, 21/20, 41/00, B 01d 33/06, 33/38.

## "CONVEYOR BELT ASSEMBLY".

Applicant : PAUL WURTH S.A., of 32 rue d'Alsace, Luxembourg, Grand-Duchy of Luxembourg, a company organised under the laws of Luxembourg.

Inventor : GUIDO MONTEYNE.

Application for Patent No. 57/DEL/84 filed on 19th January, 1984.

Appropriate office for filing opposition proceedings (Rule 4 Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## (7 Claims)

Conveyor belt assembly for discharging granulated slag from a filtering installation, particularly blast furnace slag, this filtering installation comprising a mainly horizontal

rotary drum, with filtering walls, provided with internal buckets serving to convey the slag upwards, after which it falls freely onto the conveyor belt passing longitudinally over the drum, characterised in that said conveyor belt being mounted on a frame fitted with guide rollers and return rollers, wherein the said frame consists of a pivotable section and sliding section one of them being supported by rollers on rails, in a manner allowing of a sliding motion and enabling it to be move to and fro between an operative position inside the drum and a retracted position outside the drum, while the other section is pivotably mounted, completely outside the drum, on about a shaft perpendicular to the centre of displacement of the first section.

(Complete Specification 7 Pages Drawing two sheets)

Class : 37A. 160063

Int. Class : F25j 3/08.

"AN IMPROVED CYCLONE SEPARATOR FOR CLEANSING OF A GASEOUS STREAM".

Applicant : CEMENT RESEARCH INSTITUTE OF INDIA, of M-10 South Extension, Part-II, Ring Road, New Delhi-110049, India, an Indian Institute.

Inventors : PARITOSH SENGUPTA, R. GANAPATHY, DEEPAK BISWAS, MIDDALI VENKATA RANGA RAO & DHIBHOBDA VENKETA RAMANA RAO.

Application for patent No. 72 Del/84 filed on 24th January, 1984.

Complete specification left on 22nd April, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patents Office Branch, New Delhi-5.

(2 Claims)

An improved cyclone separator comprising a cylindrical housing having an inlet to provide a tangential entry of the gaseous stream, said housing extending into a conical member for the discharge of collected particulates separated from the gaseous stream, a vortex finder at the upper end of said cylindrical housing and extending partly therein characterised in that the inlet of the vortex finder inside the said housing is provided with a conical projection and that the ratio of the diameter of said cylindrical housing to the inlet of the vortex finder is 1:25 to 1:35.

(Provisional specification 5 pages).

(Complete specification 8 pages Drawing 2 sheets)

Class : 37A. 160064

Int. Class : F25j 3/08.

"AN IMPROVED CYCLONE SEPARATOR FOR CLEANSING OF A GASEOUS STREAM".

Applicant : CEMENT RESEARCH INSTITUTE OF INDIA, of M-10 South Extension, Part-II, Ring Road, New Delhi-110049, India, an Indian Institute.

Inventors : PARITOSH SENGUPTA, R. GANAPATHY, DEEPAK BISWAS, MIDDALI VENKATA RANGA RAO & DHIBHOBDA VENKETA RAMANA RAO.

Application for Patent No. 73/Del/84 filed on 24th January, 1984.

Complete specification left on 22nd April 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-5.

(3 claims)

An improved cyclone separator comprising a cylindrical housing having an inlet to provide a tangential entry of the gaseous stream, said housing extending downwardly into a conical member, an outlet provided at the base of said

conical member for the discharge of collected particulates, a vortex finder provided at the upper end of said housing and extending partly therein for discharge of the clean gas characterised in that at least one secondary inlet is provided in said housing for introduction of secondary compressed air.

(Provisional specification 5 pages).

(Complete specification 8 pages Drawing 1 sheet)

Class : 85 Cj 160065

Int. Class : F 23c—1/00.

"AN APPARATUS FOR INCINERATING PARTICULATE SOLIDS."

Applicant : PRODUCERS RICE MILL, INC., an Arkansas corporation, whose post office address is 518 East Harrison, Stuttgart, Arkansas 72160, U.S.A.

Inventor : CHARLES ERMAN CHASTAIN and DONALD RAY KING.

Application for Patent No. 101/DEL/1984 filed on 02 Feb 1984.

Appropriate office for opposition proceedings (Rule 4, Patent Rules 1972) Patent Office Branch, New Delhi-110 005.

(4 Claims)

An apparatus for incinerating particulate solids comprising :

a housing enclosing a combustion zone;

a horizontal fuel supporting bed located within said housing below said combustion zone; feeding means connected to said housing for feeding said particulate solids to said horizontal fuel supporting bed; exhaust means connected to said housing for discharging gaseous products of combustion therefrom; collection means connected to said housing for collecting ash residue therefrom;

characterised in that a blower means is connected to said housing by a conducting means connected to said housing below said bed and above said bed to provide pressurised air to said housing at underfire location below said bed as well as at overfire location above said bed thereby enhancing fluidization of said solids above said bed in said combustion zone; said bed being provided with a plurality of flow distribution openings through which said pressurised air at said underfire location enters said combustion zone, agitating means located within said housing in said combustion zone and rotatably mounted within said housing for angularly sweeping said solids above the bed at a predetermined rotational speed during combustion; and said collection means including an imperforate annular peripheral portion of said bed onto which said ash residue from said combustion zone is radially displaced by said agitating means.

(Complete specifications 12 pages) (Drawings three sheets)

Class : 32 E. 160066

Int. Class : C 08 f—3/00.

"A PROCESS FOR THE PREPARATION OF POLYMERIC MIXTURES".

Applicant : SYNTHETICS AND CHEMICALS LIMITED, of P.O. Bhitaura Rubber Factory, Bareilly-243501, India, an Indian Company.

Inventor : HARISH CHANDER CHOPRA.

Application for Patent No. 114/DEL/1984 filed on the 07th February, 1984. Complete Specification left on the 07th February 1985.

Appropriate office for filing opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## (9 Claims)

A process for the preparation of polymeric mixtures of styrene butadiene copolymers which comprises in intimately mixing together a first and second latex of the type herein described in a mixer and wherein the ratio of the polymer in the first latex to that of the second latex is between 1:0.2 to 1:2, said mixture being stabilized by the addition of a known antioxidant thereto, subjecting said stabilized mixture and a coagulant to the step of agitation in a vessel having an agitator allowing said agitator to rotate at a speed of between 250 to 500 r.p.m.

(Provisional Specification 05 pages)

(Complete specification 09 pages)

Class : 94 F.

160067

Int. Class : B 04 c—5/00.

"PULVERIZER"

Applicant : JAMES HOWDEN & COMPANY LIMITED, a British company of 195, Scotland Street, Glasgow G4 8PJ, Scotland.

Inventor : BLAIR McDERMID, TERENCE HANSON, ROBERT ROSS WILSON and ROY DAVID FALCONER.

Application for Patent No. 126/DEL/1984 filed on 10 FEB 1984.

Convention dated 24 AUG 1983 (8322754) (U.K.)

Appropriate office for opposition proceedings (Rules 4, Patent Rules 1972) Patent Office Branch, New Delhi-110 005.

## (10 Claims)

A pulveriser comprising a chamber, bottom upper and peripheral walls forming said chamber, an inlet to said chamber for material to be pulverized and an upper outlet from said chamber for the pulverized material, a sleeve, said sleeve being mounted with its axis substantially vertical in said chamber, said sleeve including a sleeve wall having upper and lower ends, the said sleeve wall being displaced from the peripheral side wall of the chamber to define a space there between and the upper and lower ends of the sleeve being spaced from the upper and bottom walls of the chamber, a plurality of openings in said sleeve wall adjacent the lower end thereof, a plurality of fluid nozzles located outwardly of the openings for projecting fluid jets at high velocity inwardly directly through said apertures into the interior of the sleeve adjacent the lower end thereof along lines extending between a radius and a tangent to the sleeve, to cause particles of the material to be pulverized to impinge on one another, to effect the pulverizing action within the sleeve, and a flange sealingly joining a lower part of the sleeve below said openings, to the peripheral wall of the chamber, whereby the heavier particles leaving said sleeve move outwardly over the top end of the sleeve, drop downwardly in the space between the chamber peripheral side walls and the sleeve wall and are re-entrained by the fluid jets for further pulverizing action in the sleeve.

(Complete Specifications 18 pages) (Drawings five sheets)

Class : 85 C.

160068

Int. Class : F27d 3/00.

"A BOILER FEEDER APPARATUS".

Applicant : GENERAL SIGNAL CORPORATION of, High Ridge Park—Box 10010 Stamford, Connecticut 06904 U.S.A., a corporation of the State of New York, United States of America.

Inventor : ALAIN FINET.

Application for Patent No. 592/Del/83 filed on 30th August, 1983.

Appropriate office for opposition proceedings (Rules 4, Patent Rules 1972) Patent Office Branch, New Delhi-110 005.

## (5 Claims)

A boiler feeder apparatus comprising a feeder belt drive means having a head pulley, a feeder belt driven around the head pulley by the rotation of said head pulley, a control means having a BTU correction loop to correct for fuel/air imbalances in the boiler said BTU correction loop being connected to said feeder belt, characterised by a dry coal weight signal generating system connected to said BTU correction loop, said dry coal weight signal generating system having a means for determining the moisture content of coal on said feeder belt while feeding the coal to the boiler, said moisture determining means being connected to said feeder belt by means of at least a roller.

computing means connected to said moisture determining means and receiving input from said moisture determining means for computing the dry weight of said coal and

means connected between said computing means and said BTU correction loop for communicating said computed dry coal weight in the form of a signal to said BTU correction loop.

(Complete specification 18 pages. Drawing 2 sheets)

Class : 134 C & 160 D.

160069

Int. Class : B60p, 3/06 & 3/08.

"A VEHICLE FOR TRANSPORTATION OF VEHICLES".

Applicant : KRISHNASWAMY RANGASWAMY, an Indian national of A-6, East Nizamuddin, New Delhi-110 013, India.

Inventors : RANGASWAMY KRISHNASWAMY.

Application for Patent No. 652/DEL/1983 filed on 20th September, 1983.

Complete Specification left on 19th December, 1984.

Appropriate office for opposition proceedings (Rules 4, Patent Rules 1972) Patent Office Branch, New Delhi-110 005.

## (4 Claims)

A power driven vehicle comprising a cab and a trailer hitched thereto for transportation of vehicles particularly four wheeler automotive vehicles, which is capable of transporting other forms of freight characterized in that the trailer comprises a channel with a pair of upper rails mounted thereon through and columns and intermediate vertical columns for accommodating a plurality of planforms to form a single deck or a pair of decks in the form of a lower deck and an upper deck, each said platform capable of accommodating a vehicle on same, each of said platform being provided with connecting means connectable to a hoist means to raise or lower the said platform and with means to lock platform in desired position relative to said deck, each said platform having a tiltable trap door at the end remote from said connecting means, said vehicle also having a linear oscillation compensator and a turn interference compensator provided between said cab and said trailer.

(Provisoinal Specification 06 Pages, Drawing 3 sheets)

(Complete Specification 20 pages).

Class : 9A

160070

Int. Class : C22c 21/00.

"A PROCESS FOR THE PRODUCTION OF AN ALUMINIUM-BASE ALLOY."

Applicant : The Secretary of State for Defence in Her Britannic Majesty's Government of the United Kingdom of Great Britain and Northern Ireland of Whitehall, London SW1A, 2HB, England, a British Corporation Sole.

Inventors : CHRISTOPHER JOHN PEEL, BRAIN EVANS, SAMUEL JAMES HARRIS, BRAIN NOBLE and KEITH DINSDALE.

Application for Patent No. 658/DEL/1983 filed on 23 Sep 1983.

Convention Application No. 8228429 filed on 05-10-1982 (Great Britain).

Appropriate office for opposition proceedings (Rules 4, Patent Rules 1972) Patent Office Branch, New Delhi-110 005.

#### (8 Claims)

A process for the production of an aluminium-base alloy having the following composition measured in percentage by weight :—

lithium	2.0 to 3.0
magnesium	up to 4.0
zinc	2.0 to 5.0
copper	0 to 2.0
zirconium	up to 0.2
manganese	up to 0.5
nickel	up to 0.5
chromium	up to 0.4
aluminium	balance

wherein the process comprises the following steps :

i. melting within a refractory vessel a material to yield a known quantity of aluminium of known purity;

ii. introducing to the melt, in proportions tailored for an intended product alloy having a composition within the range specified above, at least one of the group consisting of zirconium, manganese, nickel and chromium; and optionally copper;

iii. establishing a melt temperature sufficient to ensure that the above mentioned alloying additions are readily dissolved in the aluminium base;

iv. cooling the melt, or allowing the melt to cool, to a temperature sufficiently low that magnesium has a low vapour pressure threat and thereupon adding lithium and magnesium to the melt in proportions tailored for the intended product alloy;

v. applying a conventional liquid metal treatment to the melt to provide grain inoculation, filtration and degassing;

vi. casting an ingot from the melt from a controlled super-heat temperature according to conventional techniques; and

vii. stress relieving and homogenising the ingot at a temperature not exceeding 560 degrees centigrade for a time dependent upon the mass of the ingot,

and wherein the process comprises the additional procedure of introducing zinc to the melt in a proportion tailored for the intended product alloy whilst the melt is still at a temperature sufficient to ensure that it is readily dissolved in the aluminium base but at a point after the process has completed all stages requiring a melt temperature at which zinc has a significant vapour pressure.

(Complete Specifications 11 pages)

CLASS 72B.

160071

Int. Class : C60b 1/00.

"A HIGH TEMPERATURE INCENDIARY COMPOSITION".

Applicants : CHIEF CONTROLLER, RESEARCH AND DEVELOPMENT, Ministry of Defence, Government of India, New Delhi (India) an Indian national.

Inventors : PRAFULA KUMAR MISHRA, RAMCHANDRA DWARKANATH GUPTA, JAYANT NRAYAN KULKARNI, RAMAKANT BALKRISHNA VAIDYA.

Application for Patent No. 682/DEL/83 filed on 30th September, 1983.

Appropriate office for opposition proceedings (Rules 4, Patent Rules 1972) Patent Office Branch, New Delhi-110 005.

#### (6 Claim)

An improved incendiary composition consisting of 10 to 20 parts of a binder, 20 to 40 parts of a hydrocarbonfuel, such as Benzene, Xylene, Toluene, Styrene, Naphthalene, either together or in an admixture 0 to 5 parts of a filler, 0 to 5 parts of each a promoter and catalyst and 40 to 60 parts of high energy ingredients such as  $\text{Fe}_2\text{O}_3$ ,  $\text{NaNO}_3$ ,  $\text{Ba}(\text{NO}_3)_2$ ,  $\text{CuSi}$  Ferrosilicon, Si, Al, Mg, Sb, Sn.

(Complete specification 5 pages)

CLASS : 24 D<sub>2</sub>, 195 C, G

160072

Int. Class : F16k 1/00, 1/44, 31/52, 31/524, G05d 16/00.

"FLUID PRESSURE CONTROL VALVE ASSEMBLY".

Applicant : BENDIX LIMITED, a British Company, of Douglas Road, Kingswood Bristol, BS15 2 NL, England.

Inventor : GEORGE ALEXANDER EDWARD STORE.

Application for Patent No. 686/DEL/1983 filed on 3rd October 1983. (Post dated to 13th October 1983).

Appropriate Office for opposition proceedings (Rule 4, Patent Rules 1972) Patent Office Branch, New Delhi-5.

#### (7 Claims)

A fluid pressure control valve assembly including a housing having a fluid pressure input port and fluid pressure output port and a vent port a pressure responsive member sealingly sliderable in the housing, the said pressure responsive member having a fluid pressure path from the input port to the interior of the member and carrying a double valve element therein said double valve element being seatable against an inlet valve seat within the pressure responsive member and/or against an exhaust valve seat in accordance with whether fluid pressure at the delivery port is greater or less than a given valve characterised in that the pressure responsive member comprises a first generally cylindrical part open at one end to slidably receive a second generally cylindrical part one said part having retaining means resiliently deformable and engageable with recess means of the other said part to provide snap-together enclosure of the valve element.

(Complete Specification 8 pages) (Drawing 3 sheets)

160073

CLASS : 72B

Int. CLASS : C06b1/00

"AN EMULSION EXPLOSIVE COMPOSITION AND A PROCESS FOR PRODUCING THE SAME".

Applicant : C-I-L, INC., of 90 Sheppard Avenue, East, North York, Canada, A Canadian Company and AECI LIMITED, of 16th Floor, Office Tower, Carlton Centre, Commissioner Street, Johannesburg, Republic of South Africa, a South African Company.

Inventors : HOWARD ANTHONY BAMPFIELD, FORTONATO VILLAMAGNA AND JEREMY GUY SMITH.

Application for Patent No. 689/DEL/1983 filed on 4th October 1983.

Convention date 29-10-1982/8230943/(Great Britain).

Appropriate Office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005

## 14 Claims

## 7 Claims

An emulsion explosive composition comprising an oxygen-supplying salt component such as herein described as a discontinuous phase, an organic medium such as herein described forming a continuous phase and an emulsifying agent characterised in that the emulsifying agent comprises at least one conventional emulsifier and at least one emulsification enhancer such as herein described.

(Complete specification 30 pages) (Drawing 1 sheet).

CLASS : 9A

160074

Int. CLASS : C01g-23/00

"METHOD OF MANUFACTURING A WELDABLE ALLOY OF TITANIUM".

Applicant : IMI TITANIUM LIMITED, Manufacturers, of P.O. Box 216, Wotton, Birmingham B6 7BA, England, A BRITISH COMPANY.

Inventors : DONALD FRANCIS NEAL AND PAUL ADDYMAN BLENKINSOP.

Application for Patent No. 696/DEL/1983 filed on 7th October 1983.

Inventors : DONALD FRANCIS NEAL AND PAUL ADDYMAN BLENKINSOP.

Appropriate Office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 13 Claims

A method for manufacturing a weldable alloy of titanium which includes the steps of mixing together the metals titanium, aluminium, tin, zirconium, niobium, molybdenum, silicon and carbon, melting the mixture to form a homogeneous alloy and cooling the alloy, in which the aluminium is present in an amount in the range 5.35-6.1%, the tin is present in an amount in the range 3.5-4.5%, the zirconium is present in an amount in the range 3.25-5%, the niobium is present in an amount in the range 0.5-1.5%, the molybdenum is present in an amount in the range 0.15-0.75%, the silicon is present in an amount in the range  $0.4 \pm 0.2\%$ , the carbon is present in an amount in the range 0.03-0.1%, balance titanium apart from incidental impurities.

(Complete Specification 25 pages) (Drawing 2 sheets).

CLASS : 152 E & 70 C<sub>06</sub>

160075

Int. Cl. : B 44 c—1/00.

A PROCESS FOR COATING A CONDUCTIVE SUBSTRATE.

Applicant : IMPERIAL CHEMICAL INDUSTRIES PLC., A BRITISH COMPANY, OF IMPERIAL CHEMICAL HOUSE, MILLBANK, LONDON SW1P 3 JF, ENGLAND.

Inventors : ALAN ROBERT CAMPBELL BARLOW & ANDREW DOROSZKOWSKI.

Application for Patent No. 724/Del/1983 filed on 31st October, 1983.

Convention date 18-11-82/82 32873/(U.K.).

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005. 5—117 GI/87

A process for coating a conductive substrate wherein the substrate is immersed in a coating composition comprising an aqueous medium and a dispersed coating material, the substrate is made a cathode in an electric circuit, and an electric current is passed between the cathode and a counter-electrode until a desired amount of coating material is deposited on the substrate, characterised in that :—

(a) the coating material comprises a film-forming polymer which is sterically stabilised as a dispersion of particles in the aqueous medium and is free from stabilising ionic charges;

(b) the film-forming polymer comprises, or is associated with, a polymeric non-ionic hydrophilic moiety which is solvated by the aqueous medium and which contributes to the steric stabilisation of the film-forming polymer particles in the aqueous medium; and

(c) the dispersion of film-forming polymer particles in the aqueous medium has a 'critical coalescence value (ccv)' as herein defined which is more negative than  $-0.3$  units.

Compl. specn. 29 pages.

Drg. 1 sheet.

CLASS : 9 E & F

160076

Int. Cl. : C 22 c—15/00.

A METHOD OF TREATING ALPHA AND ALPHA-PLUS-BETA TITANIUM ALLOYS.

Applicant : CHIEF CONTROLLER RESEARCH & DEVELOPMENT, MINISTRY OF DEFENCE, GOVERNMENT OF INDIA, NEW DELHI (INDIA), AN INDIAN NATIONAL.

Inventors : NARESH CHANDRA BIRLA AND RANJIT KUMAR BASU.

Application for Patent No. 734/Del/1983 filed on 2nd November, 1983.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 5 Claims

A method for treating alpha-plus-beta titanium alloys, for controlling anisotropy in mechanical properties of titanium and titanium alloys, which comprises the steps of adding 0.2 to 2.0 weight per cent of hydrogen to a material selected from the group consisting of alpha titanium and an alpha-plus-beta titanium alloy to convert the material to a beta condition, hot rolling the material, and removing the hydrogen from the material by heating under vacuum.

Compl. specn. 7 pages.

Drg. 1 sheet

CLASS : 129M

160077

Int. Cl. : B 23d 15/00, 15/04, 15/08 & 33/02.

APARATUS FOR CUTTING METALLIC SHEETS AND THE LIKE IN PANEL FORM.

Applicant : SCHARRINGHAUSEN MASCHINENBAU GESELLSCHAFT MIT BESCHRANKTER HAFTUNG OF D-7522 PHILLIPSBURG 3, WEST GERMANY, A JOINT STOCK COMPANY ORGANISED AND EXISTING UNDER THE LAWS OF THE FEDERAL REPUBLIC OF GERMANY.

Inventor : THEO JAGER & HELMUT SCHMID.	144147	144167	144168	144217	144242	144247	144251
Application for Patent No. 770/Del/83 filed on 21st November, 1983.	144258	144269	144282	144319	144320	144321	144322
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.	144336	144362	144363	144365	144372	144373	144415
	144425	144434	144435	144451	144455	144458	144462
	144479	144489	144490	144492	144494	144495	144504
8 Claims	144515	144519	144567	144580	144582	144592	144599
Apparatus for cutting metal sheets and similar material in panel form comprising :	144605	144615	144633	144638	144650	144670	144702
a machine frame, a lower cutter blade provided on said machine frame;	144703	144706	144709	144720	144721	144723	144733
a cooperating lowerable upper cutter blade connected to said machine frame which upper cutter blade moves with a predetermined cutting angle in relation to the lower cutter blade;	144734	144735	144736	144739	144748	144749	144752
a carriage provided beneath the upper cutter blade for bracing the sheet metal strip to be severed against the cutting force, said carriage being displaceable on a guide member beneath the upper cutter blade and along the length thereof, said carriage comprising at its upper end a plurality of rollers provided behind one another in the running direction of said upper cutter blade; and	144755	144762	144763	144765	144786	144805	144808
	144861	144896	144897	144919	144922	144988	144993
	144994	144997	145000	145009	145024	145031	145036
	145044	145060	145070	145074	145082	145130	145137
	145155	145176	145251	145252	145314	145328	145367
	145379	145395	145400	145432	145436	145455	145458
	145485	145496	145508	145519	145534.		

## PATENTS SEALED

144748	149706	153085	157029	157031	157036	157328
157329	157342	157343	157344	157348	157355	157356
157380	157416	157569	157580	157609	157654	157655
157749	157751	1577759	157760	157771	157776	157782
157785	157793	157796	157798	157799	157968	158259.

## AMENDMENT PROCEEDINGS UNDER SECTION 57

(1)

The amendment proposed by Franz Plasser Bahnbmaschinen Industriegesellschaft in respect of Patent application No. 149042 as advertised in Part III, Section 2 of the Gazette of India dated the 7th February, 1987 has been allowed.

(2)

The amendments proposed by Lucas Industries Plc., in respect of Patent No. 156368 as advertised in Part III, Section 2 of the Gazette of India, dated the 31st January, 1987 have been allowed.

(3)

The amendments proposed by Nadella (A Franch Body Corporate) in respect of Patent application No. 157533 as advertised in Part III, Section 2 of the Gazette of India dated the 3rd January, 1987 have been allowed.

## CLAIM UNDER SECTION 20(1) OF THE PATENTS ACT, 1970

(1)

The claim made by Greaves Foseco Limited under Section 20(1) of the Patents Act, 1970 to proceed the application for Patent No. 157704 in their name has been allowed.

(2)

The claim made by Bolmet Incorporated under Section 20(1) of the Patents Act, 1970 to proceed the application for Patent No. 158264 in their name has been allowed.

## CORRECTION OF CLERICAL ERRORS U/S 78(1)

Under Section 78(1) of the Patent Act, 1970 clerical errors occurring in the specification of Patent Application No. 157400 were corrected on 8th May, 1987.

## PRINTED SPECIFICATION PUBLISHED

A limited number of printed copies of the undernoted specifications are available for sale from the Patent Office, Calcutta and its branches at Bombay, Madras and New Delhi at two rupees per copy :—

(1)

144012	144045	144054	144056	144064	144065	144066
144067	144080	144090	144103	144109	144142	144144

## COMMERCIAL WORKING OF THE PATENTED INVENTIONS

## CHEMICAL ENGG. LIST NO. II.

The following Patents in the field of Chemical Engineering Industry are not being commercially worked in India as admitted by the Patentees in the statements filed by them under Section 146(2) of Patents Act, 1970, in respect of Calendar Year 1984, generally on account of want of request for licences to work the Patented inventions. Persons who are interested to work the said Patents commercially may contact the Patentees for the grant of a licence for the purpose.

Patent No.	Date of Patent	Name & Address of Patentees	Title of the Invention
1	2	3	4
140031	6-2-1974	MITSUI TOATSU CHEMICAL ING. of No. 2-5, Kasunigasaki, 3-chome, Chiyoda-ku, Tokyo, Japan.	Method of recovering unreacted ammonium carbonate in urea synthesis.
140097	15-10-1973	INDUSTRIA E COMMERIO MINERTOS S.A., of Avenida Grancha, Aranha, 26-16 Floor, Rio De Janeiro, State of Guanabara, Brazil.	Method of producing manganese oxide pellets.
140155	26-4-1973	UOP INC. of 10 UDP, Plaza-Algonquin & Mt. Prospect Road, Des Plaines, Illinois, U.S.A.	Multiple stage production of low sulfur fuel oil.
140179	13-11-1973	HOECHST AKTIENGESSELLSCHAFT, of 6230, Frankfurt, Main 80, F.R.G.	Continuous process for preparing copper phthalocyanins.
140201	12-11-1973	SHERITT GORDON MINES LIMITED, of 2800, Commerce Court West, Toronto, Ontario, Canada.	Recovering of zinc sulphides by direct pressure leaching.
140212	27-12-1972	UNION CARBIDE CORPORATION, of 270, Park, Avenue, New York, State of New York, USA.	A process for refining molten aluminium.
140284	31-7-1973	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, Rafi Marg, New Delhi-1, INDIA.	Improvements in or relating to ceramic capacitors.
140296	16-1-1974	HOECHST AKTIENGESSELLSCHAFT, of 6230, Frankfurt/Main 80, F.R.G.	Process for the after treatment of an azo pigment.
140306	24-1-1973	Do.	Process for preparing new N-(aminobenzyl) amino aryl sulfuric acids.
140379	22-12-1973	Do.	Process for the purification of copper phthalocyanine.
140449	27-3-1974	Do.	Process for the preparation of monoazo pigments.
140477	6-9-1973	JOSEPH JOHNS SCHONS, of 778 Drake Lane, Rivervale, State of New Jersey, U.S.A.	Preparation of liquid fuel.
140487	24-1-1973	HOECHST AKTIENGESSELLSCHAFT, of 6230, Frankfurt/Main 80, F.R.G.	Process for the preparation of monoazo pigments.
140550	9-11-1973	DEUSCHE GOLD-UND SILBERSCHEIDENANSTALT VORMALS ROESSLER of 9 Weiss frauenstrasse, Frankfurt (Main), F.R.G.	Rubber mixtures having reinforcing additive and method for preparing such mixture.
140635	3-4-1975	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, Rafi Marg, New Delhi.	A process for microencapsulating cholesteric material for use as a liquid crystal thermal device.
140656	29-11-1973	TEXACO DEVELOPMENT CORPORATION of 135 East, 42nd Street, New York, 10017, U.S.A.	Process for the recovery of carbon from a water dispersion thereof.
140659	22-12-1973	HOECHST AKTIENGESSELLSCHAFT, of 6230 Frankfurt/Main 80, F.R.G.	Process for the preparation of pure organic pigment.
140836	21-2-1975	Do.	Dyestuff composition for the dyeing & printing of cellulose fibre materials.
140854	28-11-1973	HITACHI LTD. of 4, 1-Chome, Marunouchi, Chiyodaku, Tokyo, Japan.	A process for producing a novel thermosetting resin.
140861	2-8-1974	UOP INC. of Ten UOP Plaza-Algonquin & Mt. Prospect Roads, Des Plaines, Illinois, U.S.A.	Hydrogen fluoride alkylation process.

1	2	3	4
140912	27-2-1974	Velagapudi Maruthi Rao, P.B. No. 714, 38 Mount Road, Madras, 600 006, Tamil Nadu, Madras.	Apparatus for separating or removal of entrained particles from gases.
140934	5-5-1973	HOECHST AKTIENGESELLSCHAFT, of 6230, Frankfurt Main 80, F.R.G.	Process for preparing new water soluble heavy metal complex dyestuffs.
140940	14-2-1974	RHONE-PROGIL, of 25 Quai Paul Doumer, 92408, Courbevoie, France.	An auto clave and process for bulk preparation of vinyl chloride polymers or polymers using the same.
141009	5-9-1973	HOECHST AKTIENGESELLSCHAFT, of 6230, Frankfurt/Main 80, F.R.G.	Process for preparing new water soluble reactive dyestuffs of anthraquinone series.
141013	14-11-1973	GENERAL ELECTRIC CO. of 1 River Road, Schenectady 5, New York, U.S.A.	A method of thermally curing polymeric material.
141249	22-2-1974	KABEL UND METALLWERKE GUTEHOFFUNG SHUTTE AG, of Vahrenwalder Strasse 271, 300, Hannover West Germany.	Method & apparatus for the production of copper clad aluminium or aluminium alloy wire and the wire so produced.
141346	15-1-1974	MITSUI TOATSU CHEMICALS INC. of 2-5, 3-chome, Kasumigaseki, Chiyoda ku, Tokyo, Japan.	Process for preparing coloured organic materials using asymmetric theindigoid compounds as the colouring component.
141433	6-3-1974	SAINT GORAIN INDUSTRIES, of 62 Boulevard Victor Hugo, Neuilly sur Seine France.	Method and apparatus for the production of fibrous materials.
141438	4-7-1973	GENERAL ELECTRIC CO. of 1 River Road, Schenectady 5, New York, U.S.A.	Abrasive bodies of finely divided cubic boron, nitride crystals and process for preparing same.
141443	16-1-1974	HOECHST AKTIENGESELLSCHAFT, of 6230, Frankfurt Main 80, F.R.G.	Process for compressing ketene.
141462	20-3-1974	RHONE PROGIL, of 25, Quai Paul Doumer, 92408, Courbevoie, France.	Bulk polymerization of vinyl chloride.
141482	13-2-1976	UOP INC. of Ten UOP Plaza, Algoquin & Mt. Prospect Roads, Des Plaines, Illinois, 60016, U.S.A.	Method for preparing a catalyst compositions containing an immobilized enzyme conjugate and the catalyst composition so prepared.
141515	20-2-1974	COMBUSTION ENGINEERING INC. of 1000 Prospect Hill Road, Windsoor, Connecticut, U.S.A.	Apparatus for producing $\text{Na}_2\text{S}$ from $\text{Na}_2\text{SO}_4$
141682	16-1-1974	HOECHST AKTIENGESELLSCHAFT, of 6230, Frankfurt, /Main 80, F.R.G.	Process for the transforming a disazo pigment into a novel physical forms.
141683	16-1-1974	Do.	A process for transforming a disazo pigment into a novel physical form.
141684	16-1-1974	Do.	A method of transforming a disazo pigment into a novel physical form.
141736	4-5-1974	UOP INC. of Ten UOP Plaza Algoquin & Mt Prospect Roads, Des Plaines, Illinois, USA.	Non-regenerative HF alkylation process.
141811	14-5-1974	LINDE AKTIENGESELLSCHAFT, of Hildastr 2-10, 6200, Wiesbaden, West Germany.	A process for the recovery of desired components observed during special scrubbing process by a scrubbing liquid from a crude gas.
141980	18-4-1975	TOYAMA CHEMICALS CO. LTD, of 1-18, Kayabacho, Nihonbasi Chuoku, Tokyo, Japan.	Process for producing novel penicillins and cephalosporins
142203	15-4-1974	UOP INC. of Ten UOP Plaza Algoquin & Mt Prospect Roads, Des Plaines, Illinois, U.S.A.	A process for the catalytic hydro desulfurization of an asphaltene containing hydrocarbonaceous charge stock.
142212	3-4-1974	PRODUITS CHIMIEGUES UGINE KUMLMANN, 25 Boulevard de La; Ahrial, Brui 'x' Paris 16, France.	Process for the preparation of ethylene nitriles.
142236	22-8-1974	MITUBISHI RAYON CO.LTD., of No. 3-19, Kyobashi 2-Chome, Chou-ku, Tokyo, Japan.	A process for preparing an impact resistant thermoplastic graft copolymers.
142344	13-9-1974	MAGNESIUM ELECTRON LTD, of Linns Lane Clifton Junction, Swinton Manchester, England.	A process for making hydribe magnesium alloys.

1	2	3	4
142433	10-12-1976	4424, Bergamo Drive, Encino, California, 91316, U.S.A.	Process for upgrading lignitic-type coal as a fuel.
142482	18-7-1974	CESKOSLOVENSKA A ADEMIE VED, of Praha, Czechoslovakia.	Method for the preparation of emulsions and pastes.
142523	16-5-1974	ALCAN RESEARCH AND DEVELOPMENT LIMITED, of 1, Place Villo Marie, Montreal, Quebec, Canada.	Wrough aluminium alloy products and method of producing the same.
142610	12-12-1974	NORTON CO. of 1 New Bond Street, Worcester, State of Massachusetts, U.S.A.	Process for preparing zirconia alumina abrasive grits.
142657	30-10-1975	UOP INC. of Ten Uop Plaza, Algonquin & Mt. Prospect Roads, Des Plaines, Illinois 60017, U.S.A.	Improvements in fluidized catalytic process.
142825	2-9-1974	HOECHST AKTIENGESELLSCHAFT, of 45 Brunning strasso Frankfurt, Main F.R.G.	Process for the preparation of water soluble monoazo compounds.
142838	13-2-1976	METALLGESELLSCHAFT AG, of 16 Frankfurt A.M. Reuterweg 14, West Germany.	Process of treating raw gas produced by the pressure gasification.
142853	3-9-1975	UOP INC. of Ten UOP Plaza Algonquin & Mt Prospect Roads, Des Plaines, Illinois, U.S.A.	A process for the dehydrogenation of hydrocarbons.
142860	20-12-1975	MAGNESIUM ELEKTRON LIMITED, of Lumn's Lane, Slifton Junction, Swinton, Manchester, England.	A method of making a magnesium base alloy.
142965	15-12-1975	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, Rafi Marg, New Delhi.	Improvements in or relating to preparation of manganese sulphate solution from manganese ores.
143118	10-12-1975	ARBROOK INC. 2500 Arbrook, Boulevard Arlington, Texas, U.S.A.	A disinfectant agent.
143128	7-5-1975	UOP INC. Ten UOP Plaza Algonquin & Mt. Prospect Roads Des Plaines Illinois, U.S.A.	A hydrocarbon conversion process.
143191	17-10-1974	HOECHST AKTIENGESELLSCHAFT, 6230, Frankfurt/Main, 80, F.R.G.	Process for the preparation of new water soluble azo dyestuffs.
143203	15-10-1973	ANHEWSTER BUSHC— INC. 721, Postalozzi Street St. Louis, Missouri, U.S.A.	Process for the production of glucose isomerase.
143236	28-9-1976	UOP INC. Ten UOP Plaza, Algonquin & Mt. Prospect Roads Des Plaines, Illinois, U.S.A.	Hydrogen fluoride alkylation process.
143258	12-10-1976	JOHNSON & JOHNSON, 501, George Street, New Brunswick, New Jersey, U.S.A.	A conditioning & cleaning shampoo composition non-irritating to eyes.
143296	23-6-1975	UOP INC. Ten UOP Plaza Algoquin & Mt Prospect Roads, Des Plaines Illinois, U.S.A.	Method of manufacture of hydrosulfurization catalyst.
143315	18-3-1975	HOECHST AKTIENGESEHLSCHAFT, 6230, Frankfurt/Main 80, F.R.G	Process for the preparation of new water soluble naphthyl monoozo dyestuffs.
143335	28-1-1975	Do.	Process for the preparation of puro aromatic O-hydroxy carboxylic acids.
143365	18-6-1975	Do.	Process for the preparation of water-soluble monoazo compounds.
143374	24-10-1975	Do.	Process for the reactive dyeing and printing of fibrous materials containing hydroxy groups.
143381	21-12-1974	PERSONAL PRODUCTS CO, Milltown New Jersey, U.S.A.	Aldehyde polysaccharide dressings for absorbing body fluids.
143470	27-6-1975	KARL KIENNER, 7081, Mold Shofe G Stebbkrels (West Germany)	Process and apparatus for the production of combustible gas from Waste material.
143521	3-11-1976	RHONE POULENIC INDUSTRIES, 22 avenue Montaigne 75, Paris (3) France.	Process for the production of phosphoric acid.
143534	20-3-1975	ASAHI KASEKI KOGYO MABUSHIKI KAISHA 25-1 Dojimamahadari, 1-chome, Kute-ku, Osaka, Japan.	Method for producing acrylonitrile.

1	2	3	4
143568	21-10-1974	SHERRITT ORDON MINES LTD, 2800 Commerce Court West, Toronto, Ontario, Canada.	Process of extracting nickel from nickeliferous laterite ore containing lenonite and serpentine fractions.
143731	16-2-1978	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, Rafi Marg, New Delhi-1, India.	Improvements in or relating to breath alcohol analysers for detecting alcohol in breath.
143732	6-11-1974	Products Chimiguen Ugine kuhlmann, 25 Boulevard No. 1, Amiral Bruix Paris.	Process for the manufacture of maleic anhydride.
143734	2-4-1975	HOECHST AKTIENGESELLSCHAFT, 6230 Frankfurt/Main 80, F.R.G.	Liquid aqueous dyeing preparations of reactive dyestuffs.
143785	3-11-1976	RHONE POULENC INDUSTRIES, 22 Avenue Montaigne 75 Paris France.	Apparatus for removing impurities from gases.
143794	11-6-1975	mitsui toatsu chemical INCORPORATED, No. 2-5, Kasumigaseki, 3-Chome, Chiyoda-ku, Tokyo, Japan.	Improvements in chemical process and apparatus therefor.
143800	20-9-1975	METALLGESELLSCHAFT AG, Frankfurt AM Reuterweg 14, West Germany.	Method of carrying out endothermic process.
143802	31-5-1976	Do.	Process for separating solid granular metallurgical products and their precursors on a plurality of linearly vibrating screens.
143839	29-5-1975	HINDUSTAN LEVER LTD. Hindustan lever House, 165/166, Backbay Reclamation, Bombay-20, India.	Production of detergent compositions.
143850	23-4-1976	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, Rafi Marg, New Delhi.	A process for making high polymeric dispersants suitable for effecting separation of clays and other materials.
143854	3-7-1975	Metallgesellschaft AG, 16 Frankfurt A.M. Reuterweg-14, West Germany.	Process of purifying gases produced by a gasification of solid fossil fuels by a treatment with water vapour and oxygen under super atmospheric pressure.
143866	28-5-1975	UOP INC. of TEN UOP Plaza, Algonquin & Mt. Prospect Roads, Des Plaines, Illinois 60016, U.S.A.	Method for the in situ reactivation of a catalyst bed.
143877	29-10-1975	The Fertilizer (Planning & Development) India Ltd., P. O. Sindri, Dt. Dhanbad, Bihar.	A method for the manufacture of sulphur from by product gypsum.
143878	29-10-1975	The Fertilizer (Planning & Development) India Ltd., P. O. Sindri, Dt. Dhanbad, Bihar.	A process for the manufacture of sulphur from pyrite ferrous shale.
143905	2-4-1975	Metallgesellschaft AG, 6 Frankfurt A.M. Reuterweg 14, West Germany.	Process for the direct reduction of iron oxide containing materials in a rotary kiln.
143912	24-11-1975	INSTRUMENT ARIUM, Elimaenkatu 22, 00510, Helsinki St. Finland.	Process and apparatus for producing compound thin films.
143915	10-12-1975	AKKBROOK INC. 2500 Arkbrook Boulevard, Arlington Texas, USA.	A method of treating medical and surgical instruments household objects to render the sterile.
143982	17-11-1975	HOECHST AKTIENGESELLSCHAFT, of 6230 Frankfurt/Main 80, Federal Republic of Germany.	Liquid preparation of reactive dyestuffs.
144057	19-11-1975	PERSONAL PRODUCTS COMPANY of Mill town, New Jersey, U.S.A.	A method of making absorbent cellulose particles.
144109	1-12-1975	LINED AKTIENGESELLSCHAFT, of Abraham Lincoln Strasse 21 D-62, Wiesbaden, F.R.G.	Separation of hydrogen & carbon dioxide in a process for the production of H <sub>2</sub> & CO <sub>2</sub> and an apparatus thereof.
144119	3-9-1975	HOECHST AKTIENGESELLSCHAFT, of 6230 Frankfurt/Main 80, Federal Republic of Germany.	A composition of matter comprising of dyestuff pigment are optical brightener and condensation product of alkylnaphthalene sulphonic acid and formaldehyde.
144120	30-9-1975	Do.	Process for dyeing and printing of synthetic polythetie polyamides.

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144141	8-1-1976	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, Rafi Marg, New Delhi-1, India.	Process for coating of zinc & die cast zinc alloy for corrosion protection.
144150	10-10-1975	ZAKALADY AZOTOWE IM. F. DZIERZYNSKIEGO of Tarnow UL, Lipows 33-101, Tarnwo, Poland.	A method for oxidation of hydrocarbons in the aliquid phase under pressure by oxygen containing gases preventing disturbances and/or effect of disturbances in the reaction system.
144181	25-2-1975	A.I. OMOEC JOMERU, 28 Rue de, Bonnel-69003-Lyon, France.	A method of and apparatus for collecting gases from cell.
144216	9-5-1975	E.D.DU, PONT DE NEMOURS & Co. of Wilmington, Delaware, U.S.A.	An oriented filament of polyester and method of making the same.
144220	27-4-1976	HOECHST AKTIENGESELLSCHAFT OF 6230 Frankfurt/Main 80, Federal Republic of Germany.	Process for the preparation of 5-acetoacetyl-2, 5-dimethoxy-4-chloroanilide.
144261	2-4-1975	PERSONAL PRODUCTS COMPANY, of of Miltown New Jersey, U.S.A.	A method for making cellulosegraft copolymer
144344	28-1-1976	HOECHST AKTIENGESELLSCHAFT, of 6230, Frankfurt Main 90 F.R.G.	AG improved process for the preparation of Water soluble azo dyestuffs.
144389	28-1-1976	Do.	A process for the preparation of liquid aqueous compositions of fibre reactive azo dyes.
144408	31-3-1976	MITSUMI COKE COMPANY LIMITED, of No. 1-1, Muromachi, 2-Chome, Nihon Bashi, Chuo-ku, Tokyo, Japan.	Process for manufacturing coke.
144449	7-5-1976	HOECHST AKTIENGESELISCHAFT, of 6230 Frankfurt/Main 80, F.R.G	Process for the preparation of stable monoazo dyestuffs.
144492	11-11-1975	ICI LTD, of Imperial Chemical House, Mill Bank London, SW 1, England.	Safety explosive composition for use in coal mines.
144514	28-5-1976	HOECHST AKTIENGESELLS CHAFT, of 6230, Frankfurt/Main 80, Federal Republic of Germany.	Process for the preparation of stable modification of a disazo dyestuff.
144534	27-4-1976	Do.	Process for preparing 1-(N-B cyanethyl-amine) 3-acylaminobenzenes.
144576	26-5-1976	Do.	Preparation of disperse dyestuffs having improved safety properties and/or higher destuff yield.
144597	10-5-1977	Johnson & Johnson, 501, George street, New Brunswick, New Jersey, U.S.A.	Mixed block polymer adhesive.
144631	26-11-1975	GENERAL ELECTRIC COMPANY, 1 River Road, Schenectady, New York, U.S.A.	A method of preparing a discrete dispersion of di-tertiary butyl peroxide and polyolefin materials.
144639	5-1-1976	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, Rafi Marg, New Delhi-1, India.	Improvements in or relating to acid picking of ferrous items.
144644	13-4-1976	SAINT-GOBAIN INDUSTRIES, of 62 Boulevard, Victor-Huge, Neuilly-sur-seine, France.	Process for the manufacture of phenol formaldehyde resins.
144645	23-7-1976	HOECHST AKTIENGESELLSCHAFT, of 6230, Frankfurt/Main 80, F.R.G.	Process for the preparation of Water-soluble copper complex compounds.
144673	25-8-1976	METALLGESELLSCHAFT A.G. 16 Frankfurt AM, Routerweg 14, West Germany.	Method of carrying out exothermic processes.
144675	15-12-1976	BENILITE CORPORATION OF AMERICA, of 233 Broadway, New New York-10007, U.S.A.	Improvements in beneficiation of ilmenite ore.
144686	31-1-1977	Metallgesellschaft AG, 16, Frankfurt A.M. Routerweg, 14, West Germany.	Improvements in or relating to a process of directly reducing iron-containing oxide materials to sponge irons.

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144745	14-2-1977	SID RICHARDSON CARBON & GASOLINE CO., of 31st Floor, Fort worth, National Bank Building, Forth, Texas 76102, U.S.A.	Method & Apparatus for the production of carbon block.
144819	26-12-1975	ETHICON INC. of Sommerville, New Jersey, U.S.A.	An improved surgical suture and method of preparing same.
144838	2-7-1976	BERNARD DEMOISEAU, of 11, Rue, Joseph-Cursat 74100, Annemasse—Dept. of Hants-savoie, France.	Method for the continuous combustion of mineral or organic combustibles and installation for carrying out this method.
144919	22-9-1976	TEXACO DEVELOPMENT CORPORATION, of 135 East 42nd Street, New York 10017, U.S.A.	A process and apparatus for continuously separation by gravity of particulate carbon-liquid organic extractant dispersion.
144941	17-2-1977	CHISSO CORPORATION, of 1, Sozecho, Vitaku, Osaka, Japan.	Method for producing vinyl chloride polymers.
144962	28-4-1976	JOHN A. EASTIN, of P.O. BOX 389, Grant Nebraska, U.S.A.	Apparatus for nitrogeous fertilizing.
144979	1-7-1976	HOECHST AKTIENGESSELLSCHAFT, of 6230 Frankfurt Main 80, Federal Republic of Germany.	Liquid composition soft reactive dyes.
144985	23-11-1976	TEXACO DEVELOPMENT CORPORATION, of 135, East, 42nd Street, New York, N.Y. 10017, U.S.A.	Fluidized cracking catalyst regeneration process and apparatus.
145049	13-10-1977	TSURUMI SODA COMPANY LIMITED, 7 Suehirocho-1-Chome, Tsurumi-ku, Yokohama-shi, Kanagawa, Kan, Japan.	Apparatus for expanding destroying and softening structures of animal and vegetable fibrous materials.
145068	6-3-1976	Hindustan Lever Limited, 165-166, Hindustan Lever House, Backbay Reclamation, Bombay-20.	Process for degumming triglyceride oils.
145110	23-6-1976	ICI AUSTRALIA LIMITED, of 1 Nicholson Street, Melbourne, Victoria, 3001, Australia.	Process of making an amphoteric polymeric composition.
145165	8-10-1976	Johnson & Johnson, 501, George Street, New Brunswick, New Jersey, U.S.A.	Low irritation detergent composition.
145175	26-5-1976	Societe Chimique Des Charabonnages, of Tour Auore-Cedex 5, 92080, Paris, France.	Process for the polymerization and copolymerisation of ethylene using a gas injection device.
145275	28-1-1977	UOP INC. of Ten Uop Plaza, Algonquin Mt. Prospect Roads, Des Plaines, Illinois 60017, U.S.A.	Method of regenerauing coke-contained catalyst with [simultaneous combustion of carbon monoxide.
145355	7-5-1976	Eisenwerk chsellechaft maximilinzshutte gmbH, 845, Sulzbach Rosenberg, West Germany.	Method and apparatus for continuous gasification of solid and/or fluid carbon containing and for hydrocarbon containing substance in molten iron in a reaction vessel.
145380	1-9-1975	Hindustan Lever Limited, 165-166, Hindustan Lever Hause, Beckbay Reclamation, Bombay-28.	Production of detergent composition.
145386	25-5-1976	UOP INC. of Ten Uop Plaza, Algonquin & Mt. Prospect Roads, Des Plaines, Illinois 60016, U.S.A.	Process for the conversion of mercaptan compounds into disulfide compounds in a petralolium distillate charge stock containing olefinic and dienio compounds.
145788	15-10-1976	DEUTSHHE GOLD UND SILBER SCHEIDENSTALT VORMALS ROESSLER 9, Weisefrauenstrase, 6000 Frankfurt, Main, F.R.G.	Procedure for carrying out Ion exchange reactions.
145951	4-10-1977	METALLGESELLSCHAFT AG, 16 Frankfurt A.M. Routerweg 14, German Federal of Republic.	Process for regenerating Water containing methanol or other water containing highly volatile organic solvent from gases.
145966	7-7-1977	The Fertilizer (Planning & Development) India Ltd., 55, Madhuban Nehru Place, New Delhi-110024.	Process of obtaining sodium tripolyphosphate

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146069	10-5-1977	JOHNSON & JOHNSON, 501, George Street, Brunswick, New Jersey, U.S.A.	Tacky adhesive composition.
146167	18-11-1977	HOECHST AKTIENGESELLSCHAFT, 6230 Frankfurt I Main, 80, F.R.G.	Process for the preparation of water soluble dyestuffs.
146221	28-7-1977	Bharat Heavy Electricals Limited, 18-20, Kasturba Gandhi Marg, New Delhi-1, India.	Method for protecting the internal surface of tubular material from corrosion and rusting.
146230	2-4-1975	PERSONAL PRODUCTS CO. Mill town, New Jersey, U.S.A.	A sanitary absorbent product having cellulose graft copolymer.
146325	7-12-1977	HOECHST AKTIENGESELLSCHAFT, 6230 Frankfurt/Main, 80, F.R.G.	A Water free solid Water soluble dyeing compositions.
146362	7-5-1976	EISENWERKGESSELLSCHAFT MAXIMILIANSHUTTE, GmbH, 8458, Sulzbach, Roesnberg, West Germany.	Method and apparatus for continuous gasification of solid and/or fluid carbon containing and or hydrocarbon containing substances in molten iron in a reaction vessel.
146531	19-10-1976	ALUMINIUM PECHINEY, 28 rue de Bonnel, 69003, Lyon, France.	Purifications circulating in the layer cycle for the alkali treatment of bauxilex by a barium compound.
146532	31-1-1977	BCIRA of Bordesley Hall Alvechurch, Birmingham B48, 7qB, England.	Cast Iron.
146570	2-11-1976	Hindustan Lever Ltd., of Hindustan Lever House, 165-166, Backbay Reclamation, Bombay-20, Maharashtra, India.	A method for preparing silica supported nickel catalyst.
146601	20-1-1977	The Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd., Birlagram, Nagda, 456331, Madhya Pradesh, India.	Improved method and system for the recovery of chemicals and heat from alkaline pulping liquors.
146666	18-5-1978	AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, P.O. Polytechnic, Ahmedabad-15, Gujarat, India.	A process for bleaching textile being cotton and its blends and an equipment for it.
146785	4-5-1977	UOP, INC. at Ten UOP Plaza—Algonquin & Mt. Prospect Roads, Des Plaines, Illinois, U.S.A.	Process for the catalytic hydrorefining of an asphaltenic hydrocarbonaceous charge stock employing a catalyst provided on support material having improved macropore volume.
146819	27-1-1978	AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, P.O. Polytechnic, Ahmedabad-15, Gujarat.	Process of preparation of disperse/reactive dyes.
146890	13-10-1977	METALL GESELLSCHAFT, A.G. of 16 Frankfurt, A.M. Reuterweg 14, West Germany.	Process of regenerating laden absorbents which become available when hydrocarbon containing gases are purified.
146932	8-9-1977	TEXACO DEVELOPMENT CORPORATION, of 135, East 42nd Street, New York-10017, U.S.A.	Process for the product stream of production of cleaned and purified aqueous mixture comprising H <sub>2</sub> & CO. and Co-rich product gas steam.
146933	15-9-1977	HOECHST AKTIENGESELLSCHAFT, of 6230, Frankfurt Main 80, Federal Republic of Germany.	Process for modifying mixtures of azo dyestuff unstable under dyeing conditions.
146978	2-6-1977	Hindustan Lever Limited, of Hindustan Lever House, 165-166 Backbay Reclamation, Bombay-20, Maharashtra, India.	Detergent bar.
146986	25-3-1977	UOP INC. at Ten UOP Plaza—Algonquin & Mt. Prospect Roads, Des Plaines, Illinois, U.S.A.	Method of reactivating a spent liquid catalytic phthalocyanine composite.
146989	9-11-1977	SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V. carel van Bykandtlaan 30, The Hague, The Netherlands.	Process for the production of a hydrocarbon mixture containing 2,2, 3-trimethyl butane.
147167	28-3-1978	Hindustan Lever Limited, of Hindustan lever House, 165-166, Backbay Reclamation, Bombay-400020, India.	Preparation of citronellol.

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147196	20-4-1978	COMBUSTION ENGINEERING INC. Prospect Hill Road, Windsor Connecticut, U.S.A.	A system for producing slow BTU gas in an entrained flow coal gassifier.
147474	20-1-1978	Chief Controller Research & Development, Ministry of Defence, Govt. of India, New Delhi, India.	A method of preparing the explosive poly- urethane sheet.
147588	3-1-1978	SIEMENS AG. OF Berlin & Munich, West Germany.	A polymer stabiliser composition.
147598	15-2-1978	Hindustan Lever Limited, Hindustan Lever House, 165-166 Backbay Reclamation- Bombay-20, India.	A method of purifying allylic tertiary esters by distillation.
147742	24-5-1978	SOCIETE FRANCAISE D' ELECTROME- TALLURGIE "SOFREM" of Rue General Foy 75361, Paris cedex 08, France.	Improvements relating to thermal processes for the production of magnesium.
147845	28-12-1977	COUNCIL OF SCIENTIFIC & INDUS- TRIAL RESEARCH, Rafi Marg, New Delhi-1, India.	Process for making molecular Sieve Zeolites from a paddy husk.
147941	23-1-1978	The Fertilizer (Planning & Development) India Ltd., Madhuban 55, Nehru Place, New Delhi-110029, India.	Process for the production of potassium nitrate.
147949	11-9-1978	ION EXCHANGE (INDIA) LIMITED, of Tieclcon House, Dr. E. Moses Road, Bombay-400 011, Maharashtra, India.	Process for the preper of a copolymer in substantially spherical bead or droplet form adapted to be employed as an improved macroporous anion exchanger.
147969	27-4-1978	UOP INC. at Ten UOP Plaza-Algonquin & Mt. Prospect, Roads, Des Plaines, Illinois, U.S.A.	A method of removing acids from liquid hydrocarbons.
148043	12-12-1978	AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION OF P.O. Poly- technic, Ahmedabad-15, Gujarat, India.	A method of and Equipment for recovery of High boiling petroleum Fractions and/or terpentine present in a gaseous mixture issuing as Exhaust from Textile and like Dyers.
148100	12-1-1978	UOP INC. at Ten UOP Plaza-Algonquin & Mt. Prospect Roads, Des Plaines, Illinois, U.S.A.	Process for catalytic reforming of a hydro- carbons charge stock in a multiple stage reactor system.
148129	27-7-1977	HOECHST AKTIENGESSELLSCHAFT of, 45 Bruningstrasse, Frankfurt/Main, Federal Republic of Germany.	Improved process for the manufacture of B-sulfate ethyl sulfonyl-amino phenol com- pounds.
148194	24-1-1979	ION EXCHANGE (INDIA) LIMITED, of Tieclcon House, Dr. E. Moses Road, Bom- bay-400 011, Maharashtra, India.	A process for the purification of crude glyoxal by ion exchange technique.
148231	12-1-1978	UOP INC. at Ten UOP Plaza-Algonquin & Mt. Prospect Roads, Des Plaines, Illinois, U.S.A.	Hydrogen producing hydrocarbon conversion with gravity flowing catalyst articles.
8322	27-7-1977	HOECHST AKTIENGESSELLSCHAFT, of 6230, Frankfurt/Main 80, F.R.G.	Improved process for the production of on organic dyestuffs containing 1, 2, 3, or 4 B-sulfate ethyl sulfonyl groups.
148323	27-7-1977	Do.	Improved process for the preparation of sulfuric acid semi-ester compounds.
148346	7-12-1977	DEMAG AKTIENGESSELLSCHAFT, of 47, -Duisburg 1, Welfgog-Reuter Plate, F.R.G.	Method of continuous smelting of ferroch- rome.
148625	27-2-1978	HOECHST AKTIENGESSELLSCHAFT, of 6230 Frankfurt/Main 80, F.R.G.	Process for the production of Water insoluble azo dyestuffs on the fibre.
148693	12-1-1978	UOP INC. Ten UOP Plaza, Algonquin and Mt. Prospect Roads, Des plaines U.S.A.	Hydrogen-producing hydrocarbon conver- sion with gravity flowing catalyst particles.
148704	9-9-1975	UGINE AGIENS, of 10 Rue Du General Foy 75361, Paris, Cedex 08, France.	A process for the preparation of free machi- ning steel.

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148705	15-4-1978	W.R. GRACE & Co. of 62 Whittemore Avenue, Cambridge State of Massachusetts, U.S.A.	Process for concentration of plate-shaped minerals.
148862	27-3-1978	MINNESOTA MINING AND MANUFACTURING COMPANY, 3M Center, Saint Paul Minnesota 55101, U.S.A.	A process for providing a protective layer to a substrate.
148979	9-9-1977	A/S RAUFOSS AMMUNISJONFABRIK-KER, of 2830, Rauges, Norway.	A process for preparing austenitic wear-resistant steel alloy.
148986	17-5-1978	HOECHST AKTIENGESSELLSCHAFT, of 6230, Frankfurt/Main 80, F.R.G.	Process for the continuous manufacture of 3-nitro 4-acetylamino-toluene and corresponding apparatus.
149003	1-3-1978	Products Chimiques ughine kuhlmann, of 25 Boulevard de 1, Amiral Bruix, 75116 Paris, France.	Process for the manufacture of acetylene black with high electrical conductivity and high absorptive power.
149321	17-10-1978	FAGERSTA AB, residing at Fack, S-77301, Fagersta, Sweden.	A method for manufacturing a Low-alloy high-speed steel.
149649	11-5-1978	Phillips Petroleum Company, Bartlesville, State of Oklahoma, USA.	Process for recovering used lubricating oils.
149005	25-4-1978	UOP INC. at Gen UOP Plaza-Algonquin & Mt. Prospect Roads, Des Plaines U.S.A.	Catalytic reforming process using sulfided acidic multimetallic composite.
149058	18-7-1979	ION EXCHANGE (INDIA) LIMITED, of Tleclcon House, Dr E. Moses Road, Bombay-400 011, Maharashtra, India.	Process for preparing high purity common salt from sea water.
149181	19-5-1979	Birla Research Institute for Applied, Selences Birlagram 456331, Nagda, Madhya Pradesh.	A process for the manufacture of dissolving grade pulp suitable for production of rayon staple fibre with reduced air and liquid stream pollution.
149216	2-9-1978	SHELL OIL COMPANY, of One shell Plaza, Houston Texas 77001, U.S.A.	A process for producing a catalyst effective for spontaneous decomposition of hyrazines.
149282	13-6-1979	AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, P.O. Polytechnic, Ahmedabad-15, Gujarat.	A Novel method of heat treatment of textiles.
149783	11-11-1975	ALCAN RESEARCH AND DEVELOPMENT LTD. of 1, Place villio, Morie, Montreal, Quebec, Gandads.	Method of producing improved metal alloy products.
149817	5-4-1979	METALLGESELLSCHAFT AG, 16, Frankfurt AM, Rauterweg, West Germany.	Steel making process.
149818	8-6-1979	Bharat Heavy Electricals Limited, 18-20, Kasturba Gandhi Marg, New Delhi, India.	A process for preparing non-halogenated harmless impregnant for capacitors.
149848	25-5-1978	ETHICON INC. Sommorville, Now Jersey, U.S.A.	A synthetic multifilament suture having poly (alkylens oxalate) absorbable coating and method for preparing the same.
149889	24-7-1978	JOHNSON & JOHNSON, 501, George Street New Brunswick, New Jersey, U.S.A.	Water based pressure sensitive adhesive and process for making the same.
149992	15-9-1978	HOECHST AKTIENGESSELLSCHAFT, K-6230, Frankfurt main 80, F.R.G.	Process for preparing a finely divided di-oxazine pigment.
149993	20-9-1978	METALLGESELLSCHAFT AG. 16 Frankfurt AM, Reuterweg, West Germany.	Process of directly reducing iron-oxide containing material.
149996	27-12-1978	Phillips Petroleum Company, Bartlesville, State of Oxlahoma, U.S.A.	Method for processing palloted furnace, carbon black,

## COMMERCIAL WORKING OF PATENTED INVENTION MECHANICAL &amp; GENERAL ENGINEERING LIST NO. II

The following patents in the field of Mechanical & General Engineering Industry are not being commercially worked in India as admitted by the patentees in the statement filed by them under Section 146(2) of Patents Act, 1970, in respect of calendar year 1984 generally on account of want of requests for licences to work the patented inventions. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a licence for the purpose.

Patent No.	Date of patent	Name & Address of the patentees	Title of the invention
140409.	11-9-1974	MAHLE GMBH of 26-46 Pragstrasse, Stuttgart, West Germany.	A piston & connecting rod arrangements for reciprocating piston engine.
140410	13-9-1974	ELITEX ZAVODY TEXTIL NIHO STROJIRNSTVI GENERALNI REDITELSTVI of Liberec, Vzechoslovakia.	Body for winding yarn in textile machine.
140451	25-9-1974	BATTELLE MEMORIAL INSTITUTE of 7, route de Drize, 1227 Carouge, Geneva, Switzerland.	Process for the manufacture of filament.
140180	27-2-1974	BÉLOIT CORPORATION of 1st Lawrence Avenue, Beloit, Wisconsin-93511, USA.	Pulp refiner element.
140571	21-6-1974	METALLGESELLSCHAFT AG. of 16, Frankfurt A.M. Reuterweg 14, West Germany	Pelletizing disk.
140747	20-3-1975	JOHNSON & JOHNSON of 501, George Street, New Brunswick, New Jersey, USA.	A blood filter unit.
140784	20-3-1975	JOHNSON & JOHNSON of 501, George Street, New Brunswick, New Jersey, USA.	Blood filtration unit.
140867	2-1-1975	TRUTZSCHLER & CO., of D-4070, Rheydt Odenkirchen, Duven Strasse, 82-92, F.R.G.	Instrument for measuring a fibre formation.
140896	2-12-1974	SVEN RUNO VILHEIM GEBELIUS of Fridhemsgratan 27, S-11240 Stockholm, Sweden.	A pipe connection means for connection of cross wise extending pipes to a longitudinally extending transport pipe.
140897	2-12-1974	SVEN RUNO VILHEIM GEBELIUS of Fridhemsgratan, 27, S-11240, Stockholm, Sweden.	A pump device for flow rate control of liquid in a piping system.
140915	8-7-1974	SVEN RUNO VILHEIM GEBELIUS of Fridhemsgratan 27, S-11240, Stockholm, Sweden.	Device for forming a yarn reverse upon simultaneous forming of a yarn.
141007	11-6-1976	NATIONAL DAIRY DEVELOPMENT BOARD KAIRO of F-103, Anand, State of Gujarat, India.	Automatic vending system for liquids.
141176	7-2-1976	THE DIRECTOR, ALL INDIA INSTITUTE OF MEDICAL SCIENCES of Ansari Nagar, New Delhi-110 016, India.	An intraluminal anastomosing device for correction of rectal atresia.
141338	12-2-1974	KABUL UND METALLGUTECHOF AG. of 3000, Hannover, Vahrenwalderstrasse, 271, Postfach 260, FRG.	Method and apparatus for paring wires metal extrusions and other elongated metallic materials.
141359	21-5-1975	RUTI-TE STRAKE B.C. of Industrieweg, 7, Deurne, The Netherlands.	A weft thread inserting nozzle.
141439	25-7-1973	GENERAL ELECTRIC COMPANY of 1, River Road, Schenectady 5, New York, USA	A diamond tipped tool insert and a process for preparing the same.
141476	15-5-1975	N.V. IMEXIN S.A. of J. Adanstreat, 14, B-1950, Kraainem, Brussel, Belgium.	Improvements in or relating to vibration damper with self damping rubber or elastomer materials.
141514	8-2-1974	GEWERKSCHAFT ISENHUTTE WESTFALIA of 4628, Wethmar Bei Lunen Westfalia, FRG.	Improvements in scraper chain conveyors.
141620	26-8-1975	PHEROVSKE STROJIRNY NARODNI PODNIKA of Prerov, Czechoslovakia.	Improvements in or relating to apparatus for preheating and calcination of granulous and piece materials.
141655	21-12-1973	FRIED KRUPP GESELLSCHAFT MIT BESCHRANKTER HAFTUNG of Altorder Fir Strasse—103, D-43, Essen, F.R.G.	Hinged and fast support especially for a bridge.

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141681	15-1-1974	E.J. DU PONT NEMOURS & CO., Wilmington, Delaware, U.S.A.	Process for continuously forming compartmented packages and compartmented packages so formed.
141727	26-4-1975	AKADEMIA MEDYGAZNA WE WROCLAWIU of Postcura Str., 1, Wroclaw, Poland.	Spatial intrauterine contraceptive insert.
141853	29-3-1974	SNIA VISCOSA SOCIETA NAZIONALE INDUSTRIA APPLICAZIONI.	Improvements in or relating to machines for continuously spinning and teating rayonviscous filaments and yarns.
141920	29-10-1974	JOHNSON & JOHNSON of 501, George Street, New Brunswick, New Jersey, U.S.A.	Anti fog surgical force mask with slite.
141960	10-2-1975	DAVID SCIACKY of 999 North Lake Shore, Drive Chicago, Illinois, U.S.A.	Rotating arc welding method and apparatus.
141974	17-3-1975	VELAGA OUDI MARUTHI RAO RAMAKRISHNA, of Bldg., 38, Mount, Road, Madras-6, Tamil Nadu, India.	Equipment for dedusting of industing of industrial gases.
142237	23-8-1974	JOHNSON & JOHNSON of 501, George Street, New Brunswick, New Jersey U.S.A.	Surgical drapo for use on an operation table.
142238	23-8-1974	Do.	Self adhesive surgical drops.
142244	15-4-1975	KNORR-BREMSE GMBH of 80, Moosacher Strasse, 8, Munich, 40 FRG.	Control valve for pressure air brakes, in particular for rail vehicles.
142385	15-10-1975	JOHNSON ; JOHNSON of 501, George Street, New Brunswick, New Jersey, U.S.A.	A surgical face mask.
142401	22-10-1974	PREROVSKE STROJIRNY NARODNI PODNIK of Prerov, Czechoslovakia.	Process and apparatus for the production of clinker.
142409	28-5-1975	RESEARCH CORPORATION of 405, Lexington Avenue, New York, State of New York, U.S.A.	Power piston actuated displacer piston driving means for free piston stirling cycle-type engine.
142648	20-1-1976	WILHELM EIRICH & ETC. of Hardheim Behnholstr 19.	Pulverising apparatus with a toothed disc.
142741	8-10-1975	YOSHIO MURAO of No. 56-1, Mazuizumi machi, Kanazawa, Ishikawa, Prof. Japan.	Cleaning machine for bobbins with waste silver.
142745	27-6-1974	SOCIETE D'ETUDES DE MACHINES THERMIQUES of 2, Quai De Seine 93202, Saint Denis, France.	A device for conditioning the air supply for a low compression ratio supercharged interval combustion engine in particular at start and low level operation.
142815	18-9-1975	UPO INC. of Ten UOP Plaza-Algonquin & Mt. Prospect Road, Des Plaines, Illinois, U.S.A.	Atreating chamber and its use for the coating and impregnating of catalyst support members.
142891	18-8-1976	PTHICON INC. of Somer Villa, New Jersey, U.S.A.	Surgical adhesive taps.
142923	15-10-1975	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH of Rafi Marg, New Delhi-1, India.	Improvements in or relating to process for painting, coating of rusted steel structures.
142927	25-6-1975	CHICAGO PNEUMATIC TOOL COMPANY of 6, East 44th Street, New York, New York-10017, U.S.A.	A rotary tool such as a surface grinding tool including a rotary air motor.
142995	15-4-1974	STEPHEN MITCHEL WOHL, of 2960, St. Joseph Boulevard, Lachine, Quebec, Canada.	A rotary internal combustion engine.
143015	15-10-1975	METALLGESELLSCHAFT AG, of 6, Frankfurt A.M. Main, Reuterweg 14, F.R.G.	Improved combustion system for pellitizing apparatus of the travelling grate type.

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143165	27-5-1975	SAINT GOBAIN INDUSTRIES of 62, Boulevard Victor Hugo Neuilly Sur-Seine France.	Process and apparatus for the manufacture of tubes from fibrous belt.
143221	10-6-1976	BIREN DAS GUPTA of 19, Shyama Palli Jadavpur, Calcutta-32, West Bengal, India.	Tubewell strainer or filter.
143246	26-6-1976	JOHNSON & JOHNSON of 501, George Street, New Brunswick New Jersey, U.S.A.	Process for producing adhesive tapes from theroplastic elastomeric material.
143259	4-5-1976	RATILAL NARITTAMDAS PANCHAL of 21A, Laxmi Industrial Estate, Sankarao Naram Path, Off Ferguson Road, Lower Parcel, Bombay-400013.	Improvements in or relating to permanent bolt fastners.
143301	19-2-1977	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH of Rafi Marg, New Delhi-1, India.	A piezoelectric micrometer.
143316	28-5-1975	CENTRAINY OSRCDEK PROJECTO-WORONSTRUKCJNY MASZYN GORNICZYEN KOMAG of Pszczynoko str. 37 Gliwice Poland.	Baum Jig.
143361	28-2-1975	FRITZ STAHLCKER & ETC. of Josef-Neidhart Strasse 18, D-7341, Bad Ueberkingen, West Germany.	Method and apparatus for start spinning thread of an open end spinning unit of an open end spinning machine.
143366	21-6-1975	OTTO JUNKER GMBH, of S107, Simmerath, German Federal Republic.	Procedure for casting specified quantities of molten metal and device for carrying out this procedure.
143376	5-12-1975	METALLGESELLSCHAFT AG. of Frankfurt A.M. Reuterweg 14, West Germany.	A method for the production of heat by combustion of carbonaceous materials.
143505	25-11-1975	A/S TEKNOVA of 2990, Niva, Denmark.	A fixture to be mounted on the discharge spout of a gas bottles of a similar tubular.
143517	10-9-1975	LECA TRADING & CONCESSION A/S of Vestergade 16, DK 1456 Copenhagen K Denmark.	A rotary kiln for producing a bloated clay product.
143551	31-12-1975	FRITZ STAHLCKER of Josef Neidhart Strasse of 18, D-7341, Bad Ueberkingen West Germany.	Open and spinning unit containing means for cleaning fibrous materials.
143598	15-10-1975	JOHNSON & JOHNSON of 501, George Street, New Brunswick, New Jersey, U.S.A.	Surgical dressing.
143635	28-2-1975	FRITZ STAHLCKER of Josef Neidhart Strasse of 18 D-7341, Bad Ueberkingen West Germany.	An open end spinning machine incorporating a movable piecing up apparatus.
143637	22-11-1974	NATIONAL RESEARCH DEVELOPMENT CORPORATION of 66-74 Victoria Street, London SW 1, England.	Hardenable sheet materials suitable for surgical splinting.
143665	2-6-1976	THE AIR PREHEATER CO. LTD. of Andover Road Wells Vile, New York, U.S.A.	Heat exchange apparatus and sealing means therefor.
143712	27-8-1975	BHARAT HEAVY ELECTRICALS LTD. of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	Improved method for the preparation of continuous sheets or paper from pulp made from mineral fibres like asbestos glass, mica and other like cleavable materials.
143724	24-2-1976	Do.	A nozzle box for use with steam turbines.
143733	17-3-1975	UOP. INC. of Ten UOP Plaza, Algonquin & Mt. Prospect Roads, Des Plaines, Illinois 60016, U.S.A.	Method of improving the salt rejection performance of semipermeable membranes.

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143740	21-2-1976	AJIT KUMAR BHATTACHARYA C/o Shri S.S. Bhattacharya, Block No. 9/5, Citizen's Co-operative Housing Society, 103, Manicktola Main Road, Calcutta- 700054.	An improved rotating centre.
143765	3-4-1976	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	Improvements in or relating to bullock carts.
143784	18-3-1976	PAUL OPRECHT OF 8962, Bergdieticon, Switzerland.	Method and apparatus for seam welding overlapped edges.
143834	26-4-1976	ALBANY INTERNATIONAL CORPO- RATION of 1373, Boadway, Albany, New York 122201, U.S.A.	Device for controlled release of vapours.
143891	27-11-1975	PERSONAL PRODUCTS COMPANY of Mill Town, New Jersey, U.S.A.	Absorbent product with reduced sloughing properties and a catamenial tampon using same.
143958	24-11-1975	SIMON-HARTKEY LTD., of Etruria Works, Stoke-an-Trent, Staff Ordshire, England.	An areator and an installation for the aera- tors of a liquid incorporating it.
143960	17-4-1976	ION EXCHANGE (INDIA) LTD. of Ticcicon House, Dr. E. Moses Road, Bombay-400011, Maharashtra, India.	Upflow filter apparatus for filtering liquids.
144042	17-8-1976	WILTSHIRE CUTLERY COMPANY, PROP. LTD. of 36, Albert Road, South Melbourne, in the State of Victoria, Australia.	Knife sharpener.
144046	21-4-1975	RIVA CALZONI S.P.A. of Via Stendhal, 34, Milano, Italy.	Water level control valves in tanks.
144058	19-11-1975	PERSONAL PRODUCTS CO., of Mill Town, New Jersey, U.S.A.	Improved absorbent product with an absor- bent core.
144082	17-9-1975	ETAT FRANCAIS REPRESENTED BY MINISTERIAL DELEGATE FOR ARMAMENT of 14, Rue Saint-Dominique, 75997, Paris, France.	A power unit.
144095	25-8-1976	UNION CARBIDE CORPORATION/ of 270, Park Avenue, New York, U.S.A.	A process for machine scarfing individual defects from the surface of a metal body.
144136	29-11-1977	GANAPATI BOSE of Sadarghat, Midna- pore-721101, West Bengal, India.	An improved cement pole.
144251	26-6-1975	JOSEPH DUKES of 517, Fayette Avenue, Mamarineck, New York-10543, U.S.A.	A linear material for a cap.
144274	11-3-1977	COMBUSTION ENGINEERING INC. of 1000 Prospect Hill Road, Windsor, Connecticut, U.S.A.	A boiler furnace design for pulverised coal and stocker firing.
144293	3-10-1975	UNITED STATES PIPE AND FOUNDRY COMPANY of 3300, First Avenue, North, Birmingham, Alabama, U.S.A.	Apparatus for shifting trough of centrifugal.
144352	14-2-1977	ETHICON INC of Somerville, New Jersey U.S.A.	A needle suture combination and method of preparing the same.
144422	11-7-1977	NATIONAL DAIRY DEVELOPMENT BOARD of F-103, Anand, State of Gujarat, India.	A manual system for dispensing a liquid like milk, beverages and other liquids.
144503	25-10-1976	AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION of 1860, P.O. Polytechnic, Ahmedabad-15, Gujarat, India.	An instrument or device for detecting measu- ring/checking tightness and slackness in a closed loop oscillating system in general and in shedding mechanism or a loom in particular.
144621	24-2-1977	COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH of Rafi Marg, New Delhi-1, India.	Five speed hub for vehicles such as bicycles.

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144624	2-4-1976	BELOIT CORPORATION of 1st Lawrence Ave Beloit Wisconsin 53511 U.S.A.	A part annular segment for use in a pulp refiner.
144632	14-1-1976	JOHNS MANVILLE CORPORATION of 22 East 40th Street, New York, U.S.A.	Method and apparatus for eliminating external hot gas attenuation in the rotary fibe-rization of glass.
144640	15-9-1975	DURAMETALLIC CORPORATION of 2104, Factory Street, Kalamazoo, Michigan, U.S.A.	An improved mechanical seal construction.
144650	9-4-1975	UOP I.N.C. Ten UOP Plaza, Algonquin, Mt. Prospects Roads, Des Plaines, Illinois 60016, U.S.A.	Alkylation reaction chamber.
144720	26-11-1974	WESTINGHOUSE BRAKE AND SIGNAL CO. LTD., of 3 John Street, London WC N 2ES, England.	Fluid pressure operable brake actuators.
144722	16-12-1974	DRESSER INDUSTRIES, INC. REPUBLIC National Bank Building P.O. Box 718, Dallas, Texas 75221, U.S.A.	An improved seal for turbo machines and a turbo machine containing the seal.
144746	23-3-1977	THE TATA IRON & STEEL CO. LTD., Jamshedpur, Bihar, India.	Improved method of coating ingot moulds and the moulds so coated.
144754	12-2-1976	EATON LTD., of Axle divisions, Durham way, Arcliffe Industrial Estate, Nr. Darlington Country Durham England, DL5 6 BJ.	Drive axle system useable in 6×6 vehicle.
144796	27-6-1977	THE TATA IRON & STEEL CO. LTD., Jamshedpur, Bihar, India.	A cold deformation process for the manu-facture of reinforcing metal bars.
144900	11-3-1976	SATAKE ENGINEERING CO. LTD., of 19-10, Uenoi-1, Chome, Taito-ku Tokyo, Japan.	Roll type buller.
145028	21-2-1977	PERSONAL PRODUCTS COMPANY, of Miltown, New Jersey, U.S.A.	An absorbent products such as sanitary nap-kins and diapers.
145128	5-11-1975	PROCEFO SA of Ricsbachstrasse 57/59, Zurich Switzerland.	Apparatus for testing the hardness of mate-rials.
145163	13-7-1976	UOP INC. of Ten UOP Plaza, Algonquin, Mt. Prospect Roads, Des Plaines, Illinois 60016, U.S.A.	A dispensing apparatus for particulate material.
145168	18-1-1977	JOHNSON & JOHNSON of 501, George Street, New Brunswick, New Jersey, U.S.A.	A stabilized flavoured tooth cleaning article.
145250	29-12-1976	COUNCIL OF SCIENTIFIC & INDUS-TRIAL RESEARCH of Rafi Marg, New Delhi-1, India.	Improvements in or relating to precast ferro cement cylindrical units for use in structures like grain storage bins, water tanks, biogas holders and pipes.
145310	23-8-1976	COMBUSTION ENGINEERING INC. of 1000 Prospect Hill Road, Windsor, Connecticut, U.S.A.	A pulverising mill.
145337	4-3-1977	Do.	A shop assembled boiler.
145379	3-1-1977	PUROLATOR INDIA LTD. of Hauz Khas, New Delhi—India.	A seal adapted to be filled with a filter assembly.
145392	7-12-1976	AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION of 1860, P.O. Polytechnic, Ahmedabad-15, Gujarat, India.	A device or instrument for tracing profiles of cams or tappets and plotting any para-meter which is a function of a cam profile.
145409	14-12-1976	ETHICON INC. of Sommerville, New Jersey, U.S.A.	Absorbable surgical suture and a process for preparing same.
145478	24-11-1976	LONE STAR STEEL COMPANY of 2200 W, Mockingbird Dallas, Texas, 75235, U.S.A.	Process for obtaining pollutant material from gas streams and an apparatus therefor.
145582	18-12-1975	MAHLE GMBH of 26-46, Pragstrasse, Stuttgart Germany (W).	Reinforcing insert for piston ring grooves of pistons.

1	2	3	4
145632	25-1-1977	COMBUSTION ENGINEERING INC. of of 1000, Prospect Hill Road, Windsor, Connecticut, U.S.A.	A gas scrubber plant.
145638	15-9-1976	DRESSER INDUSTRIES INC. of Dresser Bldg., P. O. Box 716, Dallas, Texas 75221, U.S.A.	Improved shaft support means.
145641	4-12-1976	WILTSHIRE CUTLERY CO., PROPRIETARY LTD., 36, Albert Road, South Melbourne in the State of Victoria, Australia.	Knife sharpener.
145688	3-2-1977	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	An instrument for measuring the velocity and direction of gas or air.
145703	7-6-1977	Do.	A fluidized bed combustor.
145711	11-5-1976	KRAFTWERK UNION A.G. of 433 Mulheim Ruhr Wiesenstr-35, FRG.	A steam generator for operation with coal firing.
145721	7-6-1977	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi- 110 001, India.	A flow abdetransit time defector.
145724	25-10-1976	R.A. LISTER & CO LTD., of Long Street, Dursley, Gloucestershire, GL 11 4 HS, England.	A liquid sealing device.
145944	8-10-1975	MCNEIL AKRON of 96, East Crosier Street, Akron Summit country, Ohio 44311 U.S.A.	Tire cutting press centre mechanism.
145761	7-12-1976	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH of Rafi Marg, New Delhi-1, India.	A smokemeter for measurement of smoke density of exhaust gases in diesel vehicles.
145821	23-3-1977	THE TATA IRON & STEEL CO. LTD., Jamshedpur, Bihar, India.	System for evaluating performance of hot top materials.
145850	29-3-1977	SCHABLONENTEKNIK KUFSTEIN GESELLSCHAFT MBH A-6330 Kufstein, Schaffenu, Australia.	Process for producing a perforation pattern metal oil in pressure screen printing and pres- sure foil printing screen produced thereby.
145889	2-8-1976	COMBUSTION ENGINEERING INC. of 1000, Prospect Hill Road, Windsor, Connecticut, U.S.A.	A main burner for wet treatment of textile and an apparatus for carrying out said process.
145944	21-6-1977	JOHNSON & JOHNSON of 501, George Street, New Burnswick, New Jersey, U.S.A.	Reticulat web.
145982	21-1-1977	PERSONAL PRODUCTS CO., of Mill town, New Jersey, U.S.A.	Protective absorbent liner for mether garments.
145997	7-6-1977	BHARAT HEAVY ELECTRICALS LTD., of 18-20 Kasturba Gandhi Marg, New Delhi- 110 001, India.	A fluidized bed.
146050	9-8-1976	THE BLOXWICH LOCK & STAMPING CO LTD., of P. O. 4, Alexander Works Bloxwich Welsall Staffordshire Ws 3 2 JR, England.	Improvements in fastening mechanisms for doors of mechanism.
146098	16-8-1976	VEREINIGTE OCSTERREICHISCHE EISEN UND STAHLWERKE— ALPINE A.G. of 1011, Vienna, Friedrichstrasse, 4, Austria.	Method for cutting minerals and cutting machine.
146119	26-11-1977	BHARAT HEAVY ELECTRICALS LTD., of 18-20 Kasturba Gandhi Marg, New Delhi-110 001.	Device for measuring hardness of the metallic material particularly at a high temperature.
146131	15-3-1976	KERMIT HOUGHINS WILSON of 7001, Antrim Road, Edina, Minnesota, U.S.A.	Elevationally adjustable folding stage.
146140	4-6-1976	FUJI TOYUKI CO LTD., of 1217 Jayashik- cho, Takamstau-shi- Kagawa-Ken, Japank-	Oil lubricating device.
146161	27-4-1977	JAMES KETP CO PTY. LTD., of Creek Road, Currumbin, Queensland, 4223, Australia.	Drilling holes in pressurized pipes.

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146190	21-5-1977	THE TATA IRON & STEEL CO. LTD., Jamshedpur, Bihar, India.	Improvements in or relating to method of making powder for dry magnetic particle inspection.
146204	2-2-1976	GEBRUDER AHLE of 5251, Karlstahl, West Germany.	A round wire helical compression spring particularly for use in motor vehicles.
146206	8-10-1976	VERFINIGTE OCSTERREICHISCHE EISEN UND STAHLWERKE—ALPINE A.G. of 1011, Vienna, Friedrichstrasse, 4, Austria.	Bit holders and method of manufacture of the same.
146209	16-8-1976	CHICAGO PNEUMATIC TOOL CO. 6 East, 44th Street, New York, U.S.A.	Pneumatic nut runner having a directional valve and an air regulator.

### MECHANICAL & GENERAL ENGINEERING LIST NO. III

#### COMMERCIAL WORKING OF PATENTED INVENTION

The following patents in the field of Mechanical & General Engineering Industry are not being commercially worked in India as admitted by the patentees in the statement filed by them under Section 146(2) of Patents Act, 1970 in respect of calendar year 1984 generally on account of want of requests for licences to work the patented inventions. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a licence for the purpose.

Patent No.	Date of Patent	Name & Address of the Patentees	Title of the Invention
1	2	3	4
146210	26-11-1977	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	Improvements in or relating to continuous enamelling process on metallic foils.
146237	28-6-1977	Do.	An economizer for use in a fluidized combustion boiler.
146238	28-6-1977	Do.	A convection evaporator for use with a fluidized bed combustion boiler.
146239	28-6-1977	Do.	A fluidized bed combustion boiler.
146240	28-6-1977	Do.	A fluidized bed combustion boiler.
146243	28-6-1977	Do.	A bed evaporator for use with a fluidized combustion boiler.
146253	1-9-1976	FRIED KRUPP GMBH, of 103, Altendortter strasse D-4300, Essen, FRG.	A box girder in particularly for a dismountable bridge composed of interlocking units.
146262	23-5-1977	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	A solar collector.
146287	24-10-1977	CHARLES W. REED, of 5174, Brookside Lane, Concord, California 94521, U.S.A.	A method and apparatus for purification of water from power, plant steam cycle.
146345	11-4-1977	A.G. NAIDU, Sole Proprietor of Allied Engineering Industries, P. B. No. 2727, 27-A, Bharathi Park Road, Saibaba Mission, P.O. Coimbatore 641043, Tamil Nadu, India.	Improvements in or relating to travelling suction and blowing cleaners for use in industrial units such as textile units.
146390	5-4-1977	DEVLIEG MACHINE COMPANY of Fir street, Royal Oak Michigan 48058, U.S.A.	Self-retracting tool.
146436	20-9-1976	HENRI VIDAL, of 8 Bis, Boulevard, Maillot, 92, Neuilly sur, Seine France.	Reinforcement for a structure of reinforced earth.
146445	31-3-1978	KRAFTWERK UNION AKTIEN- GESELLSCHAFT, of 4330, Mulheim (Ruhr), Wiesenstr, 35, FRG.	Screening member for separating solids from gaseous media.
146497	16-1-1978	NARASINHA GOVIND KAMAT, c/o D. Prabhu, 5th Floor, Saraswati Niket 5, Camac Street, Calcutta, State of West Bengal, India.	A pilfer proof housing for electrical meter.

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146498	3-9-1977	BHARAT HEAVY ELECTRICALS LTD. of 18-20 Kasturba Gandhi Marg, New Delhi- 110 001, India.	A tail stock for use with a cylindrical grinding machine.
146512	13-4-1976	LEVI STRAUSS & CO., of Two Embarcadero Center San Francisco California 94106, U.S.A.	Method of manufacturing twill fabrics.
146535	30-6-1977	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi- 110 001, India.	Pneumatic chuck.
146541	29-12-1976	DOWTY HYDRAULIC UNITS LTD., of Arle Court, Chetenham, England.	Wagon speed control.
146637	20-12-1976	SIEMENS A.G. of Berline & Munich, West, Germany.	Actuators for operating control devices.
146649	6-6-1977	JOHNSON & JOHNSON of 501, George Street, New Brunswick, New Jersey, U.S.A.	A self supporting elastic and thermoplastic film and process for extruding the same.
146650	7-6-1977	Do.	A highly flexible and conformable disposable absorbent dressing.
146728	25-5-1977	THE TATA IRON & STEEL CO. LTD., of Jamshedpur, Bihar, India.	Sliding gate valve mechanism used for teeming hot metal from the ladle.
147790	18-8-1977	Do.	Cold roller transversely reinforcement bars.
146794	21-1-1977	PERSONAL PRODUCTS CO., of Mill town, New Jersey, U.S.A.	Non-planar arcuate shaped absorbent liner such as sanitary napkins and panty shield.
146826	9-8-1977	JOHNSON & JOHNSON, of 501, George street, New Brunswick, New Jersey, U.S.A.	Pressure sensitive adhesive tape.
146835	21-2-1977	BELOIT CORPORATION, of Beloit Corporation, Wisconsin 53511, U.S.A.	Device for and method of temporarily sealing and supporting shafts.
146869	6-10-1976	SOCIETE D'ETUDES DE MACHINES THERMIQUES 2 Quai De Saine 93202 Saint Denis, France.	Improvements in mushroom type valve cooled by cooling fluid circulation.
146879	5-11-1976	AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, of P. O. Polytechnic, Ahmedabad-380015, Gujarat, India.	Process of obtaining specked dyeing or print- ing effects on fabrics.
146888	11-3-1977	KIMMON MANUFACTURING CO. LTD., of 2-3-1—Chome, Shimura, Itabashi-ku Tokyo Japan.	Diaphragm type gas meter.
146901	11-4-1977	GEORGE HENRY HALL, of P. O. Box 244, Westford, Massachusetts, U.S.A.	A wire saw and a method of forming the same.
146923	29-11-1977	C. CONRADTY NURNBERG. GMBH & Co., Kg. D-8505, Rothenbach, a.d. Pegnitz. Grunthal, F.R.G.	Carbon body and method of manufacturing it.
146973	26-11-1977	BHARAT HEAVY ELECTRICAL LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	Process for preparing metallurgical micro- structure without destroying metallurgical object's
146976	2-7-1977	ICI LTD., of Imperial Chemical House, Mill Bank London, S.W. IP 3 JF England.	Apparatus for electrostatic spraying of pesticides.
146995	30-9-1977	INTERNATIONAL BUSINESS MEACINES CORDN. Armonk, New York-10504, U.S.A.	Rotary-to-linear motion conversion device.
147014	4-8-1978	AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, P. O. Polytechnic, Ahmedabad-15, Gujarat, India.	An instrument to measure and indicate the speed of shuttle in and for looms.
147051	22-10-1977	COUNCIL OF SCIENTIFIC & INDUS- TRIAL RESEARCH, Rafi Marg, New Delhi- 110001, India.	Improved screen vibrator for surface compac- tion purposes.
147113	26-10-1976	SOCIETE'D' ETUDES DE MACHINES THERMIQUES, S.E.M.T., of 2 Quai De Saine 93202 Saint, France.	Improvements in or relating to fuel injection pumps for internal combustion engines.

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147124	11-3-1977	WILLIAM LISTER, of 36 Rabaul Street, Moorooka Queensland, 4105, Australia.	A pneumatic percussion hammer.
147141	24-4-1978	THE FERTILIZER (PLANNING-DEVELOPMENT) INDIA LTD., C.I.F.T. Bldg., P. O. Sindri, Dist. Dhanbad, Bihar, India.	System for determining or evaluating the thermal conductivity of heat insulating material.
147161	10-6-1976	D'ETUDES DE MACHINES THERMIQUES S.E.M.T. 2, Quai de Seine 93202, Saint Denis, France.	Device for measuring & following the degree in sliding contact with a second element.
147164	16-1-1979	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	A liquid/dye injector for flow visualisation.
147178	4-4-1977	KLEIN, SCHANZLIN & BECKER A.G. of 6710, Frankenthal, (pfalz), Postfach 225, FRG.	Blade for rotor a rotary pumps.
147214	19-11-1975	PERSONAL PRODUCTS COMPANY, of Milltown New Jersey, U.S.A.	A catamenial device.
147270	6-7-1977	WILTSHIRE CUTLERY COMPANY PROP. LTD. of 36, Albert Road, South Melbourne, in the State of Victoria, Australia.	Sharpening device and knife scabbard including the same.
147324	3-11-1977	PECHINEY UGINE KUHLMANN, of 23, Rue Balazc 75008, Paris, France.	A process for purifying the exhaust gases given off by diesel type internal combustion engines.
147343	27-6-1977	WILLIAM LISTER, of 36, Rabaul Street, Moorooka, Queensland, 4105, Austria.	Rock-drilling bit for percussion hammers.
147399	9-6-1976	LITTON SYSTEMS, INC. of 711, Union Blvd. Totown, N.J. 075, U.S.A.	Drive for traversing carriage.
147404	6-10-1975	THAGARD TECHNOLOGY COMPANY, of 2712, K Kelvin avenue, Irvine, State of California, U.S.A.	A process for carrying out a chemical reaction at an elevated temperature and reactor for carrying out the same.
147417	27-5-1978	INDIAN INSTITUTE OF SCIENCE, of Bangalore-560012, India.	A kerosene stove.
147467	5-10-1976	MACHINENFABRIK REINHAUSEN GEPRUDER SCHEUBECK, G.M.B.H. of 8 Falkensteinstrasse, 84, Regensburg, F.R.G.	On-load tap changer.
147567	2-11-1977	HINDUSTAN LEVER LIMITED of Hindustan Lever House, 165-166, Backbay Reclamation, Bombay-20, Maharashtra, India.	A sheet of board material for moisture resistant packaging.
147568	1-8-1977	KRAFTWERK UNION A.G. of 4330 Mulheim (Ruhr), Wiesenstr. 35, F.R.G.	Turbine casing assembly.
147610	14-6-1977	UNITED TECHNOLOGIES OF 1, Financial Plaza, Hort Ford, Connecticut, 06101, U.S.A.	A gas turbine.
147650	15-2-1977	ALEXANDER GEORGE COPSON, of 52 High Street, Yaddlethorpe sounthorpe, Lincolnshire, England.	Normally closed gas exhaust valve and dividing gas recovery system incorporating the same.
147681	23-12-1977	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	High pressure and intermediate pressure steam turbine cylinder designs.
147683	23-1-1978	Do.	A device for measuring tensile and or compressive of materials.
147688	20-3-1978	HOUILLERES DD BASSIN DU NORD, of 20, Rue Des, Minimes 50, Douai, France.	Improved process by means of which moulded coke can be obtained from non-cokable coals.
147745	22-7-1977	AHMEDABAD TEXTILE INDUSTRY'S RESEARCH P. O. Polytechnic, Ahmedabad-15, Gujarat, India.	A rapid abrasion testing means for laminates plastics paper and leather.

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147753	2-8-1977	KRAFTWERK UNION A.G. 433, Mulheim (Ruhr), Wiesenstr. 35, F.R.G.	A shaft seal for a steam turbine with a divided outer housing and a shaft seal cover.
147766	28-6-1978	UOP INC. OF Ten UOP Plaza-Algonquin & Mt. Prospect roads, Des Plaines, Illinois, U.S.A.	Moving bed radical flow solids-fluid contacting apparatus.
147773	28-11-1977	UNITED STATES PIPE & FOUNDRY CO, 3300, First avenue, North, Birmingham, Alabama, U.S.A.	Pipe joints.
147788	30-10-1977	UNION CARBIDE CORPORATION, of 270 Park avenue, New York, State of New York-10017, U.S.A.	A thermomechanical scarfing process and apparatus therefor.
147789	17-11-1977	SOCIETE D'ETUDES DE MACHINES THERMIQUES-S. E.M.T. of Quai de Seine, 93292, Saint Denis, France.	A supercharger set for internal combustion engines of reciprocating piston type.
147835	9-5-1978	SVEN TUNO VILHELM GEDESIUS, Fridhemsgatan, 27, 8 11240-Stockholm; Sweden.	Device for reducing or interrupting a media flow through a tubular pipe.
147904	23-6-1978	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	Fluidized Bed combustor boiler.
148005	15-3-1978	MACENPAT G.M.B.H. of Nidelbadstrasse, 96, 8803, Ruschlikon, Switzerland.	Container for tape cassette.
148054	9-2-1977	SOCIETE D'ETUDES DE MACHINES THERMIQUES S.E.M.T. 2 Quai de Seine 93292 Saint, Denis, France.	Improvements in or relating to a device for damping pressure waves in an internal combustion engine fuel injection system.
148221	17-8-1977	MITSUI TOATSU CHEMICALS INC. ETC. of 2-5, 3-chome, Kasumigaseki, Chiyoda-ku, Tokyo, Japan.	Composits multi-stage pump.
148223	3-10-1977	DEVLIEG MACHINE COMPANY, Fair street, Royal Oak, Michigan 48068, U.S.A.	Presettable cool supporting device.
148279	6-2-1978	KLEIN-SCHANZLIN & BECKER AG. Postfach 225, Johannklein Strasse, 9, D-6710, Frankenthal (Pfalz) F.R.G.	Heat barrier means for high temperature circulating pumps.
148294	10-10-1977	PALITEX PROJECT-COMPANY, GMBH. of Weeserweg, 8, 4150, Krefeld, West Germany.	Apparatus for the take-up and tension free reissue of a given length of thread.
148299	30-1-1978	OD. WIKAR CHRISTENSSON, of Veddestavagen, 7-9, S-175, 62, Jarfalla, Sweden.	Lined container, especially for compressed and/or evacuated goods and method and apparatus for manufacturing such container.
148330	23-6-1978	BHARAT HEAVY ELECTRICALS LTD., of 18-20, of Kasturba Gandhi Marg, New Delhi-110001, India.	Improvements in or relating to fluidized bed combustion boiler.
148368	1-12-1977	INTERQANE SYSTEMS INC. 2679, Howard avenue, Windsor, Ontario, N 8x, 3x2, Canada.	An apparatus for separating the pith and rind components of surgercans stalk.
148419	20-1-1978	GENERAL ELECTRIC COMPANY, of 1, Reiver Road, Schemattady, State of New York, 12385, U.S.A.	Temperature resistant machine tool component and method for making same.
148508	20-6-1978	UOP INC. at Ten UOP Plaza-Algonquin and Mt. Prospect Roads, Des Plaines, Illinois, U.S.A.	Channel base well screen.
148526	6-11-1978	BHARAT HEAVY ELECTRICALS LTD. of 18-20, Kastruba Gandhi Marg, New Delhi-110001, India.	A feeder for feeding a continuous charge to a pressurized vessel.
148541	21-1-1978	COMBUSTION ENGINEERING INC. of 1000, Prospect Hill Road, Windsor, Connecticut, U.S.A.	Band type tube support.
148609	13-10-1977	BHARAT HEAVY ELECTRICALS LTD. of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India	Segmental baffle type shell and tube heat exchangers.

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148632	12-1-1979	BHARAT HEAVY ELECTRICALS LTD. of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	Axial flow heat exchanger.
148669	24-8-1978	UNION CARBIDE CORPORATION, of 270, Park avenue, New York, State of New York-10017, U.S.A.	Process and apparatus for thermochemically scarging a metal workpieces.
148672	12-12-1978	AHMEDABAD TEXTILE INDUSTRIES RESEARCH ASSOCIATION, of 1860, P. O. Polytechnic, Ahmedabad-15, Gujarat, India.	A novel process and apparatus to recover steam and hot water from blow down water of a boiler.
148709	21-10-1978	JOHNSON & JOHNSON of 501, George Street, New Brunswick, New Jersey, U.S.A.	A water resistant orthopaedic bondage.
148710	19-4-1979	PERSONAL PRODUCTS COMPANY, of Milltown, New Jersey, U.S.A.	Sanitary napkins.
148731	10-3-1978	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	A coal based combined cycle power generating system.
148748	16-6-1979	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	Improvements in or relating to a solar energy cooker.
148761	25-9-1978	M.N. CHAKRAVARTI, of M/132, Greater Kailash II, New Delhi-110048, India.	A tower.
148778	28-8-1978	GIRLING LIMITED, of Kings Road, Tysoley, Birmingham 11, England.	Improvements in spreading disc brakes for vehicles.
148823	14-9-1978	LINDAUER DORNIER G.M.B.H. OF 8990, Lindau, West Germany.	Method and a loom for the production of a double pile fabric with single weft insertion.
148836	2-6-1977	MAHL GMBH, of 26-16, Pragstrasse Stuttgart, Germany (West).	Improvements in or relating to light metal pistons.
148866	20-4-1978	MATREX LIMITED, of Bond avenue Bletchley, Buckinghamshire, England.	Improvements in or relating to steel framed building.
148897	17-12-1977	WH. R. STEWART & SONS (HACKLOMAKERS) LTD., of Marine Parade, Dundee DD: 3.D. Scotland.	Rotary steel cutting devie.
148901	6-10-1978	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	Improvements in refrigerent systems.
148902	6-10-1978	BHARAT HEAVY ELECTRICALS LTD. of 18-20, Kasturba Gandhi Marg, New Delhi-110001, India.	Improvements in an absorber for a continuous vapour absorption refrigeration system.
148950	19-12-1977	MARTIN ENGINEERING COMPANY, of Route 34, Neponsot, Illinois 61345, U.S.A.	Conveyor belt cleaner blade mounting arrangement.
149040	25-5-1978	ETHICON INC. of Somerville, New Jersey, U.S.A.	A package for multistrand surgical suture.
149046	9-5-1977	UNION CARBIDE CORPORATION, of 270 Park Avenue, New York, State of New York, 10017, U.S.A.	Method and apparatus for making an instantaneous thermochemical start.
149050	26-4-1978	COMBUSTION ENGINEERING INC. Prospects Hill Road, Windcor, State of Connecticut, U.S.A.	Furnace having a central combustion chamber with plurality of burners adapted to exhaust fuel and air mixtures tangentially into said.
149063	29-2-1980	ION EXCHANGE (INDIA) LTD., of Ticcicon House, Dr. E. Moses Road, Bombay-400011, Maharashtra, India.	Apparatus for separation of oils from oils containing liquids.
149098	17-3-1979	AHMEDABAD TEXTILE INDUSTRIES, RESEARCH ASSOCIATION of P. O. Polytechnic, Ahmedabad-380015, Gujarat, India.	An improved process for imparting flame-regardancy to cellulosic fibres/fabrics and/or thin blends with synthetic fibres.

1	2	3	4
149137	4-11-1978	BELOTI CORPORATION, of Beloit, Wisconsin 53511, U.S.A.	A paper web processing machine for coating same.
149139	25-1-1978	RUEGER SA. Chemin De Mongevon of 9, 1023, Crissier-Lausanne Switzerland.	Cooking thermometer.
149159	6-12-1977	F.I. DU PONT DE NEMOURS & Co., of Wilmington, Delaware, U.S.A.	Low energy explosive connecting cord manufacturing method and apparatus.
149175	4-11-1978	BELDIT CORPORATION, of Beloit Wisconsin 53511, U.S.A.	Improvements in dryer drums for drying.
149178	20-1-1979	RAJESHWAR DAYAL, of 12, Saket, 67, J.B. Nagar, Andheri (East), Bombay-400059.	An apparatus for puffing cellulosic materials.
149226	13-9-1978	COMBUSTION ENGINEERING INC. of 1000 Prospect Hill Road, Windsor, Connecticut, U.S.A.	Improvements in gate valves for use in large size ducts having an obstruction such as an inner pipe extending there through.
149248	16-12-1977	SIEMENS AKTIENGESSELLSCHAFT of Berlin & Munich, West Germany.	Method for preparing contact material.
149250	29-3-1978	LIOUILLERES DU BASSIN DU NORD of 20, Rue De Minimes 59, Douai, France.	Furnace walls which can be used at high temperature.
149255	18-10-1978	ALAN NICHOLAS JACOBSEN, of 14, Raheen Drive Kew, in the state of Victoria, Australia.	Improved method and apparatus for the spinning of yarn.
149288	7-3-1979	KABELSCHLEPP GMBH, of Marienborner strasse 75, 5900, Siegen, 1, Federal Republic of Germany.	Improvements in supply line support ducting.
149307	12-4-1978	ESMIL B.V. of Stations street, 48, Amersfort, The Netherlands.	Heat exchanger.
149356	7-2-1978	KEELN SCHANZUN & BECKER AG, Postfach 225, Johannklein strasse 9, D-6710, Frankenthal (Pfalz), F.R.G.	Slidable sealing rings for shaft of fluid pumps subject to thermal shocks.
149396	17-2-1978	COMBUSTION ENGINEERING INC. of prospect Hill Road, Windsor, State of Connecticut, U.S.A.	An apparatus for the burning of a pulverized coal.
149410	8-9-1978	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, Rafi Marg, New Delhi-1, India.	A compact device for the simultaneously measuring the settlement characteristics of building and lime civil engineering structures.
149422	3-1-1978	INTERNATIONALS POWER TECHNOLOGY, of 260 Shriden Avenue, Suite 414, Palo Alto, California 94306, USA.	Pressure staged heat exchanger.
149423	19-1-1978	STOCZNIA SZCZECINSKA IM. ADOLFA WRSKIEGO of U.I. Hulinicza 1, Szczecin, Poland.	Ship hull.
149424	21-3-1978	COMBUSTION ENGINEERING INC. of 1000, Prospect Hill Road, Windsor, Connecticut, U.S.A.	A furnace system for firing pulverised coal in a system generator.
149425	25-5-1978	AKTIENGESSELLSCHAFT KUHNLE KOPP & KAUSCH of Friedrich-Ebert-Str. 16.6710, Frankenthal Pfalz, F.R.G.	Gas turbine particularly exhaust gas supercharger.
149426	7-11-1978	PHILLIPS PETROLEUM COMPANY, of Bartlesville, state of Oklahoma, U.S.A.	Method and apparatus for drying particulate material.
149471	17-5-1978	PAUL OPPRECHI, of In Hinteren Berfeld 8962, Bergdistikon/Switzerland.	Transport installation for can bodies for a fully automated resistance welding machine.
149493	8-3-1979	JOHNSON & JOHNSON of 501, George Street, New Brunswick, New Jersey, U.S.A.	Paper surgical tape.
149509	14-3-1978	DYCKERHOFF & WIDMANN AG, of Erdinger Landstrasse, 1, 8000, Munich 81, F.R.G.	Device for simultaneously stressing a number of tension elements.
149513	2-11-1978	MAHIE GMBH, of 26-46, Pragstrasse, Stuttgart, Germany (West).	Piston for internal combustion engine having a piston body consisting of light metal and a crown plate.

1	2	3	4
149539	24-1-1979	PRESSURE COOKERS & APPLIANCES LTD., of United India Bldg., P.M. Road, Bombay-400001, India.	Improvements in or relating to pressure cookers.
149579	5-9-1979	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, Rafi Marg, New Delhi-1, India.	An improved electrolytic process for the preparation of grained aluminium plates for lithographic printing.
149581	9-11-1978	SIEMENS AKTIENGESELLSCHAFT of Berlin & Munich, West Germany.	Axial fan.
149606	26-12-1977	BRITISH AEROSPACE PUBLIC CO. 100, Pall, London, England.	An arrangement used in take-off flight-deck for an aircraft.
149645	9-2-1979	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi 110001, India.	A pick up device for the measurement of fluid flow velocities.
149669	25-1-1979	DEMAG AKTIENGESELLSCHAFT, of Wolfgang, Reuter-Platz, D-4100, Uisburg, F.R.G.	Tensioning device for tension elements on metallurgical containers especially on interchangeable converters.
149674	7-6-1979	BELOIT CORPORATION, Beloit, Wisconsin, U.S.A.	An improved force feed lubrication system for doctor bearing for doctor blades.
149676	15-3-1978	ALUMINIUM PECHINEY, of 28, rue de Bennel, 69003, Lyen, Franco.	A pneumatic conveying apparatus for conveying pulverulent material.
149682	12-12-1978	BIREN DAS GUPTA, of 19, Shyama Palli, Jadavpur, Calcutta-700032, West Bengal, India.	Tube well strainer or filter.
149724	18-12-1978	UNITED TECHNOLOGIES CORPOARTION of 1, Finland Plaza, Plaza, Hartford, Connecticut, 06101, U.S.A.	A rotor blade assembly and specifically turbine wheel assembly.
149749	7-12-1977	SAINT GOBAIN INDUSTRIES, Boulevard Victor-Hugo, Neuilly-Sun-Seine, France.	Process and apparatus for the manufacture of fibres from attenuable materials.
149757	4-11-1978	BELOIT CORPORATION, Beloit, Wisconsin, 53511, U.S.A.	Paper making machine press section.
149758	19-2-1979	JOHNSON & JOHNSON, of 501, George Street, New Brunswick, New Jersey, U.S.A.	Layered absorbent structure.
149759	19-2-1979	JOHNSON & JOHNSON of 501, George Street, New Brunswick, New Jersey, U.S. A.	A sanitary napkin disposable diaper and catamenial lampon having a core of absorbent product.
149816	4-9-1978	PERSONAL PRODUCTS COMPANY, Mill town, New Jersey, U.S.A.	A method of producing a soft comfortable contamenial tampon sealed in liquid impermeable container or envelope.
149881	27-12-1978	COMBUSTION ENGINEERING INC. of 1000, Prospect Hill Road, Windsor, Connecticut, U.S.A.	Method of forming holes in metal parts and extruding nipples therein.
149883	27-7-1979	BHARAT HEAVY ELECTRICALS LTD., of 18-20, Kasturba Gandhi Marg, New Delhi 110001, India.	Multi-channel cooling system of tyrbogenerator rotor overhand windings.
149921	4-11-1978	BELOIT CORPORATION, Beloit, Wisconsin, 53511, U.S.A.	Improvements in winders for winding a roll from a continuous travelling web & more particularly to peper web-winders.
149926	12-5-1978	FESTO-MASCHINENFABRIK GOTILIEB STOLL, Ulmerstrasse 48, Esslingen, A.M. West Germany.	Multiway valve used in pneumatic control systems.
149939	4-5-1978	PETER JACKSON of 53/64, Chancery Lane, London, WC 2A 1HN, England.	A heat storage pond.
149950	4-11-1978	BELOIT CORPORATION, Beloit, Wisconsin, 53511, U.S.A.	A winder for winding a continuous travelling web of sheet material paper web on to a core.
149953	9-4-1979	TRW INC. of 23555, Euclid avenue, Cleveland, Ohio, 44117, USA.	Power steering motor seal in a power steering motor.
149966	20-8-1979	METALLGESELLSCHAFT AG. of 16, Frankfurt AM. Reuterweg, West Germany.	Sieving roller conveyor for green pellets.
149997	22-1-1979	AKTIENGESELLSCHAFT KUHNLE & KUPP & KAUSCH of D-6710, Frankenthal/Pfalz, Postfach, 265, Mozarstrasse, 58, West Germany.	Hydraulic servo-motor.

## RENEWAL FEES PAID

141428	142317	143165	143397	144002	144076	144078
144989	145491	145535	145634	145825	146528	146880
148513	149597	150031	150317	150326	150640	150709
150962	151075	151430	151584	151616	151754	151776
151948	152021	152334	152433	152463	152524	152649
152829	152951	152973	153081	153131	153200	152295
153311	153603	153718	153961	153978	154180	154497
154624	154651	154785	154837	155078	155271	155411
155415	155418	155690	155754	155875	156245	156318
156470	156490	156598	156645	156666	156757	156758
156761	156762	156763	156764	156766	156770	156771
156772	156786	156789	156807	156821	156823	156826
156828	156854	156855	156856	156860	156861	156863
156870	156873	156888	156892	156896	156897	156898
156899	156900	156926	157001	157019	157030	157046
157054	157120	157530	157538	157665		

## CESSATION OF PATENTS

139424	139425	139426	139428	139429	139430	139433
139424	139425	139426	139428	149429	139430	139433
139443	139445	139446	139447	139449	139451	139453
139457	139459	139461	139462	139463	139465	139466
139470	139472	139473	139474	139478	139479	139481
139482	139483	139484	139485	139486	139487	139489
139491	139492	139493				

## RESTORATION PROCEEDINGS

## (1)

Notice is hereby given that an application was made under Section 60 of the Patents Act, 1970 for the restoration of Patent No. 156416 granted to Kandiah Tharma Nayagam for an invention relating to "apparatus for forming a continuous casting of concrete or other similar structure."

The patent ceased on the 2-3-87 due to non-payment of renewal fees within the prescribed time and the cessation of the patent was notified in the Gazette of India, Part-III, Section 2, dated the 9-5-87.

Any integrated person may give notice of opposition to the restoration by leaving a notice on Form 32 in duplicate with the Controller of Patents, The Patent Office, 214, Acharya Jagadish Bose Road, Calcutta-700017 on or before the 20th August 1987 under Rule 69 of the Patents Rules, 1972. A written statement in triplicate setting out the nature of the Opponent's interest, the facts upon which he bases his case and the relief he seeks, shall be filed with the notice or within one month from the date of the notice.

## (2)

Notice is hereby given that an application was made under Section 60 of the Patents Act, 1970 for the restoration of Patent No. 156665 granted to Sitaram Khatore for an invention relating to "a process for the preparation of an effective medicine from borax for jaundice."

The Patent ceased on the 10-3-1987 due to non-payment of renewal fees within the prescribed time and the cessation of the patent was notified in the Gazette of India, Part-III, Section 2, dated the 9-5-87.

Any interested person may give notice of opposition to the restoration by leaving a notice on Form 32 in duplicate with the Controller of Patents, The Patent Office, 214, Acharya Jagadish Bose Road, Calcutta-700017 on or before the 20th August 1987 under Rule 69 of the Patents Rules, 1972. A written statement in triplicate setting out the nature of the Opponent's interest, the facts upon which he bases his case and the relief he seeks, shall be filed with the notice or within one month from the date of the notice.

## REGISTRATION OF DESIGNS.

The following designs have been registered. They are not open to inspection for a period of two years from the date of registration except as provided for in Section 50 of the Design Act, 1911.

The date shown in the each entry is the date of registration of the design included in the entry.

Class. 1. No. 157654. RAJINDER NATH, an Indian National of 1-2, Industrial Estate, Ambala City-134 002, Punjab, India. "Drive unit of kitchen mixing machines." 12th November, 1986.

Class. 1. No. 157653. RAJINDER NATH, an Indian national of 1-2, Industrial Estate, Ambala City-134 002, Punjab, India; "Base of kitchen mixing machines." 12th November, 1986.

Class. 1. Nos. 158216, 158217, 158218 & 158263. Babulal Bhogilal & Co. of 15, Bada Mandir, Gaushala, 3rd Bhoiwada, Bombay-400 002, Maharashtra State, India, an Indian Registered Partnership firm. "Greater (Khamni)". 13th April, 1987.

Class. 3. No. 157644. Wimco Pen Company, 11, Mehta Industrial Estate, 1st floor, I. B. Patel Road, Goregaon (East), Bombay-400063, Maharashtra India, an Indian Partnership Firm. "Casserole". 6th November, 1986.

Class. 3. No. 157645. National Celluloid Products, 1st floor, Vakil Industrial Estate, Walbhat Road, Goregaon (East), Bombay-400063, Maharashtra, India, an Indian Partnership Firm. "Container", 6th November, 1986.

Class. 3. Nos. 157805, 157806. Asian Advertisers, 20, Kala Bhavan, 3, Mathew Road, Opera House, Bombay-400004, Maharashtra, India, an Indian Partnership Firm. "Bottle Opener". 24th December, 1986.

Class. 3. No. 157811. Asian Advertisers, 20, Kala Bhavan, 3, Mathew Road, Opera House, Bombay-400004, Maharashtra, India, an Indian Partnership Firm. "Pen Stand". 24th December, 1986.

Class. 3. No. 157812. Asian Advertisers, 20, Kala Bhavan, 3, Mathew Road, Opera House, Bombay-400004, Maharashtra, India, an Indian Partnership Firm. "Pin Tray". 24th December, 1986.

Class. 3. Nos. 157833, 157834. Asian Advertisers, 20, Kala Bhavan, 3, Mathew Road, Opera House, Bombay-400004, Maharashtra, India, an Indian Partnership Firm. "Water Bottle". 31st December, 1986.

NAME INDEXES FOR THE APPLICANT FOR PATENT FOR THE MONTH OF SEPTEMBER, 1986 (NOS; 657/Cal/86—717/Cal/86, 246/Bom/86—276/Bom/86, 701/Mas/86 to 775/Mas/86 and 777/Del/86 to 867/Del/86)

## Name &amp; Appln. No.

"A"

Abplanalp. R. H.—692/Cal/86.

Acumeter Laboratories, Inc.—812/Del/86.

Additional Secretary, Defence Research, Ministry of Defence, Govt. of India.—782/Del/86.

Air Products and Chemicals, Inc.—735/Mas/86.

Akebono Brake Industry Co. Ltd.—774/Mas/86.

Alchemie Research Centre.—275/Bom/86.

Alfa Institut für hauswirtschaftliche Produkt-und Verfahrens-Entwicklung GmbH.—702/Mas/86.

*Name & Appln. No.*

Allied Corporation.—845/Del/86.  
 Anson Limited.—710/Mas/86.  
 Arockiasamy, A.—776/Mas/86.  
 Arora, D. S. (Com.)—783/Del/86.  
 Astra-Tech Aktiebolag.—792/Del/86.  
 Atochem.—709/Mas/86, 711/Mas/86.  
 Aurotech N. L.—739/Mas/86.  
 Ausiment S.p.A.—674/Cal/86, 675/Cal/86.

**"B"**

BBC Brown, Boveri & Company Limited.—724/Mas/86.

*Name & Appln. No.*

BP Chemicals Ltd.—787/Del/86, 860/Del/86.  
 B. F. Goodrich Co., The.—800/Del/86.  
 Babcock & Wilcox Company, The.—687/Cal/86, 688/Cal/86, 689/Cal/86, 690/Cal/86.  
 Bairagya, C. N.—709/Cal/86.  
 Bandag Licensing Corporation.—834/Del/86.  
 Baramac Corporation Limited.—710/Cal/86.  
 Bayer Aktiengesellschaft.—814/Del/86.  
 Beta Company, The.—248/Bom/86.  
 Bendix France.—861/Del/86.  
 Better Life International Inc.—833/Del/86.  
 Bhambure, A. R.—273/Bom/86.  
 Bhatia, S.—779/Del/86.  
 Bhide, S. K.—269/Bom/86.  
 Boots Company PLC, The.—746/Mas/86.  
 Borg Warner Industrial Products, Inc.—832/Del/86, 859/Del/86.  
 Burley, J.—770/Mas/86.  
 Butler, D.—790/Del/86.

**"C"**

CRA Services Limited.—713/Cal/86, 714/Cal/86.

Carrier Corporation.—664/Cal/86.  
 Caterpillar Inc.—769/Mas/86.  
 Cemtech Laboratories, Inc.—810/Del/86.  
 Chattan Nominess Pty. Ltd.—684/Cal/86.  
 Chatterjee, S.—676/Cal/86.  
 Chawla, J. K.—858/Del/86.  
 Chemie Linz Aktiengesellschaft.—813/Del/86.  
 Choudhri, A. R.—797/Del/86.  
 Clevite Industries Inc.—668/Cal/86.  
 Coetzee, A. O.—793/Del/86.  
 Colah, H. K.—271/Bom/86.  
 Colah, K. H.—271/Bom/86.  
 Colebrand Ltd.—816/Del/86.  
 Combustion Engineering, Inc.—663/Cal/86.  
 Comptroller Midical Centre, The.—268/Bom/86.  
 Comvik AB.—694/Cal/86.  
 Contractor, E. N.—260/Bom/86.  
 Cooper Industries, Inc.—665/Cal/86.

*Name and Appln. No.*

Council of Scientific and Industrial Research.—780/Del/86, 781/Del/86, 796/Del/86, 805/Del/86, 837/Del/86, 851/Del/86, 852/Del/86, 853/Del/86, 854/Del/86.

**"D"**

D. C. Ghose & Co. (Agents) Private Limited.—686/Cal/86.  
 Dahodwala, M. H.—263/Bom/86.  
 Dana Corporation.—780/Mas/86.  
 Daniel & C. Officine Meccaniche S.p.A.—708/Cal/86.  
 Dela Rue Giori SA.—862/Del/86.  
 Deb Roy, A. (Dr.)—673/Cal/86.  
 Desai, M. H.—257/Bom/86.  
 Desai, P. W.—262/Bom/86.  
 Deshpande, A. G.—249/Bom/86.  
 Dneprodzerzhinskyy Industrialny Institut Imeni M. I. Arsenicheva.—706/Cal/86.  
 Donze, P.—831/Del/86.  
 Dow Chemical Company, The.—740/Mas/86, 762/Mas/86, 763/Mas/86, 773/Mas/86.  
 Dresser U. K. Ltd.—785/Del/86.  
 Dutta, B. C.—695/Cal/86.  
 Dutta, D.—695/Cal/86.

**"E"**

E. Merck (India) Ltd.—247/Bom/86.  
 Elamthottam, J. K.—765/Mas/86.  
 Elevator GmbH.—734/Mas/86.  
 Energy Conversion Devices, Inc.—848/Del/86, 849/Del/86, 855/Del/86, 856/Del/86.  
 Essex Group, Inc.—679/Cal/86.  
 Etablissement Public De Diffusion dit "Telediffusion De France" (Etat).—717/Cal/86.  
 Etat Francais.—717/Cal/86.  
 Ethiraj, R.—730/Mas/86.  
 Exxon Research and Engineering Company.—824/Del/86.

**—F—**

F. L. Smidth & Co.—777/Mas/86.  
 Fine Metals Export Corporation Pty. Ltd.—807/Del/86.  
 Formica Corporation.—720/Mas/86.  
 Foster Wheeler Ltd.—850/Del/86.  
 Fuchs Systemtechnik GmbH.—693/Cal/86.

**—G—**

Garg, T.—691/Cal/86.  
 Garware Wall Ropes Ltd.—256/Bom/86.  
 Gen Corp Inc.—791/Del/86.  
 General Motors Corporation.—701/Mas/86.  
 Gerin, M.—761/Mas/86.  
 Glenda Myralynn Titus.—266/Bom/86.  
 Glyco-Metall-Werke.—706/Mas/86.  
 Graseby Dynamics Limited.—707/Mas/86.  
 Gupta, A. K. 828/Del/86.

*Name and Appln. No.*

## —H—

Haak, R. V. D.—866/Del/86.  
 Henkel Kommandit gesellschaft auf Aktien.—736/Mas/86.  
 Hindustan Level Ltd.—253/Bom/86.  
 Hitachi Construction Machinery Co. Ltd.—669/Cal/86,  
 670/Cal/86.  
 Hoechst Aktiengesellschaft.—677/Cal/86, 701/Cal/86, 703/  
 Cal/86, 711/Cal/86.  
 Hoechst Aktiengesellschaft.—720/Mas/86.  
 Honeywell Inc.—270/Bom/86.

## —I—

Intersteel Technology, Inc.—707/Cal/86.  
 Ion Exchange (India) Ltd.—250/Bom/86.  
 Ireco Incorporated.—753/Mas/86.  
 Isover Saint-Gobain.—672/Cal/86.  
 Izumi, M.—723/Mas/86.

## —J—

Jain, R. (Smt.).—788/Del/86.  
 Johannes, G. O.—700/Cal/86.  
 Johar, G. S.—799/Del/86.  
 Joseph.—799/Mas/86.  
 Joshi, S. P.—743/Mas/86.

## —K—

Kabelschlepp GmbH.—267/Bom/86.  
 Kalachari, C.—704/Mas/86, 705/Mas/86.  
 Kaltenecker, B.—733/Mas/86.  
 Kennecott Corporation, 835/Del/86.  
 Kher, R. N.—821/Del/86.  
 Krishna Murthy, S. N.—749/Mas/86.  
 Krishna Rao, D. B.—760/Mas/86.  
 Kumar, M.—778/Del/86.  
 Kumar, R. 842/Del/86.  
 Kuo, D. M.—794/Del/86, 844/Del/86.

## —L—

Lacrex Brevetti SA.—708/Mas/86.  
 Livanos, C.—795/Del/86.  
 Loganathan, A. J.—768/Mas/86.  
 Lubrizol Corporation, The.—789/Del/86, 798/Del/86, 801/  
 Del/86, 803/Del/86, 841/Del/86.  
 Lucas Industries Public Limited Company.—750/Mas/86,  
 764/Mas/86.

## —M—

M. W. Kellogg Co, The.—829/Del/86.  
 Magneti Marelli S.p.A.—745/Mas/86.  
 Mannesmann Aktiengesellschaft.—702/Cal/86.  
 Marathon Manufacturing Company.—757/Mas/86.  
 Maschinenfabrik Reinhausen Gebrüder Scheuback GmbH &  
 Co. KG.—741/Mas/86.  
 Megabar Corporation.—667/Cal/86.  
 Merck Patent Gesellschaft Mit Beschränkter Haftung.—685/  
 Cal/86.  
 Metal Box P.L.C.—731/Mas/86, 732/Mas/86,  
 Minnesota Mining and Manufacturing Company.—738/Mas/  
 86.

*Name and Appln. No.*

Montedison S.p.A.—666/Cal/86.  
 Mull, V.—784/Del/86.  
 Murali, J.—752/Mas/86.

## —N—

NL Industries, Inc.—867/Del/86.  
 National Council for Cement & Building Materials.—820/  
 Del/86, 843/Del/86.  
 Navalkar, C. B.—259/Bom/86.  
 Nayak, U. V.—715/Mas/86.  
 Nicolas, P.—744/Mas/86.  
 Nikam, S. S. 246/Bom/86.  
 Nippon Soda Company Limited, 716/Del/86, 717/Cal/86.  
 Nissan Chemical Industries, Lt.—662/Cal/86.

## —O—

Occidental Research Company.—754/Mas/86.  
 Ontario Ltd. (528569).—865/Del/86.

## —P—

Peckslon, J. I.—742/Mas/86.  
 Palnitkar, M.R. (Mrs).—767/Mas/86.  
 Palnitkar, M.R.C.—767/Mas/86.  
 Palnitkar, R.C.P.—767/Mas/86.  
 Palnitkar, V. R.—767/Mas/86.  
 Pandit, A. K.—671/Cal/86.  
 Patel, A. K.—258/Bom/86.  
 Permsky Politekhnikhesky Institut.—680/Cal/86.  
 Philip Morris Incorporated.—716/Mas/86.  
 Piaggio & C. S. p. A.—838/Del/86.  
 Pillai, P.—729/Mas/86.  
 Poclain Hydraulics.—802/Del/86.  
 Pont-A-Mousson A.A. 839/Del/86.  
 Prasanna, H.—718/Mas/86, 719/Mas/86.  
 Precision Mouldings Pvt. Ltd.—261/Bom/86.  
 Preformed Line Products Company.—737/Mas/86.  
 Profilafroid.—811/Del/86.

## —R—

Rao, M. P.—255/Bom/86.  
 Rau, R. H. G. (Dr.).—697/Cal/86, 698/Cal/86,  
 Ravichandran, M. D.—777/Del/86.  
 Rawal, J. H.—671/Cal/86.  
 Raychem Limited.—778/Mas/86.  
 Refco Icemetic Co. Pvt. Ltd.—822/Del/86.  
 Rohm Cmbh.—808/Del/86.

## —S—

SMS Masenclever Maschinenfabrik GmbH.—772/Mas/86.  
 S S Pharmaceutical Co. Ltd.—825/Del/86.  
 STC PLC.—804/Del/86, 864/Del/86.  
 Saha, B.—657/Cal/86.  
 Samuel Heath & Sons PLC.—682/Cal/86.  
 Sanden Corporation.—819/Del/86.

*Name and Appln. No.*

Santrade Limited.—726/Mas/86.  
 Schubert & Salzer Maschinenfabrik Aktiengesellschaft.—748/Mas/86.  
 Seikoshā Co. Ltd.—251/Bom/86.  
 Seth, S. K.—818/Del/86.  
 Shah, M.—683/Cal/86.  
 Shah, R. V.—697/Cal/86, 698/Cal/86.  
 Shell Internationale Research Maatschappij B. V.—840/Del/86.  
 Shukla, R. R.—265/Bom/86.  
 Siemens Aktiengesellschaft.—658/Cal/86, 659/Cal/86.  
 Sika AG.—755/Mas/86.  
 Societe Des Electrodes ET Refractaires Savoie (SERS).—712/Cal/86.  
 Societe des Produits Nestle S.A.—717/Mas/86, 728/Mas/86.  
 Societe Electronique De La Region Pays De Loire.—806/Del/86.  
 Societe Nationale Des Poudres Et Explosifs.—786/Del/86.  
 Sood, B.—857/Del/86.  
 South India Textile Research Association, The.—781/Mas/86.  
 Stamicarbon B. V.—725/Mas/86, 775/Mas/86.  
 Stanly, I.—751/Mas/86.  
 Stencel Aero Engineering Corporation.—830/Del/86.  
 Sudarshan, S.—714/Mas/86.

## —T—

Tambat, N. D. (Dr.).—697/Cal/86, 698/Cal/86,  
 Tarachandani, I. N.—272/Bom/86.  
 Tesa Metrology Ltd.—815/Del/86, 817/Del/86.  
 Toyo Engineering Corporation.—809/Del/86.  
 Trutzschler GmbH & Co. Kg.—699/Cal/86.  
 Tsai, C. W.—705/Cal/86.

## —U—

UOP INC.—823/Del/86.

*Name and Appln. No.*

USS Engineers and Consultants, Inc.—799/Del/86.  
 Umlauf, N.—704/Cal/86.  
 Union Camp Corporation.—703/Mas/86.  
 Union Carbide Corporation.—712/Mas/86, 713/Mas/86, 727/Mas/86, 756/Mas/86, 771/Mas/86.  
 Union Carbide Corporation.—836/Del/86.  
 Uniroyal Chemical Co.—846/Del/86.  
 Uniroyal Chemical Co. Inc.—863/Del/86.  
 Upmanyu, A.—252/Bom/86.  
 Uralsky Nanuchnossiedova-telsky Institut Chernykh Metallov.—680/Cal/86.  
 Usinor-Aciers of Immeudle "Tle-de-France".—747/Mas/86.

## —V—

Vellankkaran, T. J.—722/Mas/86.  
 Venkatachalapathy, G.—758/Mas/86, 759/Mas/86,  
 Videocolor.—826/Del/86.  
 Vishwakarma, R. J.—274/Bom/86.  
 Vitamins, Inc.—661/Cal/86.  
 Voest-Alpine Aktiengesellschaft.—678/Cal/86.  
 Volzhskoe Obiedinenie Po Proizvodstvu Legkovykh Avtomobilei (AVTOVAZ).—827/Del/86, 847/Del/86.  
 Vyas, M. M.—264/Bom/86.

## —W—

Wagh, A. S.—276/Bom/86.  
 Wagner, H. J.—660/Cal/86.  
 Wajnikonis, K. J.—254/Bom/86.  
 Westinghouse Electric Corporation.—681/Cal/86, 696/Cal/86.  
 Wills, C. C.—766/Mas/86.  
 Wyler, A.—660/Cal/86.

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 Trade Marks